

DRAFT
REDESIGNATION REQUEST AND MAINTENANCE
PLAN

FOR THE

WISCONSIN PORTION OF THE
CHICAGO-NAPERVILLE (IL-IN-WI)
2008 8-HOUR OZONE NONATTAINMENT AREA

Kenosha County (Partial), Wisconsin

Developed By:
The Wisconsin Department of Natural Resources

May 2016

DRAFT FOR PUBLIC REVIEW

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List of Acronyms

AEI	WDNR’s Air Emissions Inventory
AQS	EPA’s Air Quality System database
BACT	Best Available Control Technology
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CAIR	Clean Air Interstate Rule
CAMD	Clean Air Markets Division
CAMx	Comprehensive Air Quality Model with Extensions
CART	Classification and Regression Tree analysis
CD	consent decree
CSA	Combined Statistical Area
CSAPR	Cross-State Air Pollution Rule
CTG	Control Technology Guideline
DV	design value
EGU	electric generating unit
EPA	U.S. Environmental Protection Agency
ERTAC	Eastern Regional Technical Advisory Committee
FID	facility identification number
FIRE	EPA’s Factor Information Retrieval database
GIS	Geographic Information System
HC	hydrocarbon
ICI Boiler	Industrial, Commercial, and Institutional Boilers and Process Heaters
IDEM	Indiana Department of Environmental Management
IEPA	Illinois Environmental Protection Agency
I/M	Inspection and Maintenance
I-SIP	Infrastructure SIP
LADCO	Lake Michigan Air Directors Consortium
MACT	Maximum Achievable Control Technology
MAR	commercial marine, aircraft and rail locomotive
MATS	Mercury and Air Toxics
MOVES	EPA’s MOtor Vehicle Emission Simulator model
MVEB	Motor Vehicle Emissions Budget
NAAQS	National Ambient Air Quality Standard
NAICS	North American Industrial Classification System Code
NEI	National Emissions Inventory
NESHAP	National Emission Standards for Hazardous Air Pollutants
NMHC	non-methane hydrocarbon
NO _x	nitrogen oxides (NO and NO ₂)
NSR	New Source Review
PM _{2.5}	fine particulates
PM ₁₀	coarse particulates
ppm	parts per million
PTE	potential to emit
PSD	Prevention of Significant Deterioration

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RACM	Reasonably Available Control Measures
RACT	Reasonably Available Control Technology
RFG	reformulated gasoline
RICE	Reciprocating Internal Combustion Engine
SIP	State Implementation Plan
SCC	Source Classification Codes
SEWRPC	Southeastern Wisconsin Regional Planning Commission
tpsd	tons per summer day
VMT	vehicle miles of travel
VOC	volatile organic compounds
WDNR	Wisconsin Department of Natural Resources

1. INTRODUCTION

Wisconsin requests that the U.S. Environmental Protection Agency (EPA) redesignate the Wisconsin portion of the Chicago-Naperville, IL-IN-WI, nonattainment area (the eastern part of Kenosha County, Wisconsin; hereinafter “eastern Kenosha County”) from nonattainment to attainment for the 2008 8-hour ozone National Ambient Air Quality Standard (NAAQS). The Chicago-Naperville, IL-IN-WI, nonattainment area for the 2008 ozone NAAQS (the “Chicago 11-county nonattainment area”) consists of all or portions of 11 counties in Illinois, Indiana and Wisconsin. This area includes 8 counties in Illinois (including two partial counties), two counties in Indiana, and eastern Kenosha County in Wisconsin, all classified as a moderate ozone nonattainment area. This nonattainment area is shown in Figure 3.1. The states of Illinois and Indiana are also submitting redesignation requests for their portions of the Chicago 11-county nonattainment area. The Chicago area has recorded three years of complete, quality-assured ambient air quality monitoring data for the years 2013 through 2015 that demonstrates attainment of the 2008 ozone NAAQS.

1.1. Background

The federal Clean Air Act (CAA) requires an area not meeting a NAAQS for a specified criteria pollutant to develop or revise its State Implementation Plan (SIP) to expeditiously attain and maintain the NAAQS in that nonattainment area. When attainment of a NAAQS in a nonattainment area has been achieved, Section 107(d)(3)(D) of the CAA allows states to request the nonattainment area to be redesignated to attainment provided that certain criteria are met.

Historically, exceedances of the federal ozone standards have been monitored along the lakeshore of Lake Michigan, including eastern Kenosha County. Kenosha County was designated nonattainment for two previous ozone NAAQS but has been either redesignated to attainment for or found to be attaining each of these standards¹, as shown in Table 1.1.

Table 1.1. Kenosha County nonattainment history for ozone NAAQS.

Year Promulgated	1979	1997	2008
Level	0.12 ppm	0.08 ppm	0.075 ppm
Averaging Time	1 hour	8 hours	8 hours
WI Nonattainment Area	Milwaukee-Racine Area*	Milwaukee-Racine Area*	Kenosha (partial), part of the Chicago Area
Classification	Severe-17	Moderate	Marginal (reclassified to Moderate)
Finding of / Redesignation to Attainment¹	4/24/2009 74 FR 18641	7/31/2012 77 FR 45252	TBD

*The Milwaukee-Racine Area encompassed Kenosha, Racine, Milwaukee, Ozaukee, Washington and Waukesha Counties for the 1979 and 1997 NAAQS.

¹ EPA issued an attainment determination for the Milwaukee-Racine nonattainment area after the 1979 1-hour NAAQS was revoked, so this area was never formally redesignated to attainment of this standard. The area was redesignated to attainment of the 1997 ozone NAAQS in July 2012.

In March 2008, the EPA finalized a revision to the 8-hour ozone NAAQS (73 FR 16436). The 2008 ozone NAAQS (0.075 parts per million, ppm) was more restrictive than the previous 1997 ozone NAAQS (0.08 ppm). In June 2012, EPA published a final rulemaking that designated all or part of eleven counties in the Chicago-Naperville, IL-IN-WI, Combined Statistical Area (CSA) as marginal nonattainment for the 2008 ozone NAAQS (77 FR 34221). This rulemaking was based upon EPA's review of ozone monitoring data collected during the years 2009-2011 for Illinois and 2008-2010 for Indiana and Wisconsin.² On May 4, 2016, EPA reclassified the Chicago 11-county nonattainment area from marginal to moderate nonattainment status, effective June 3, 2016. This reclassification was based on 2012-2014 monitoring data.

1.2. Geographical Description

Kenosha County is located in southeastern Wisconsin along the western shoreline of Lake Michigan, just north of the Illinois state line. The nonattainment designation for Kenosha County applies only to the eastern portion of the county, including the townships of Pleasant Prairie and Somers. Kenosha County has a largely service-based and industrial economy, with a 2010 population of 166,426. 77% of the county's population (128,534) lives in the 2008 ozone NAAQS nonattainment area. Kenosha County is roughly halfway between the cities of Chicago and Milwaukee and is part of the Chicago-Naperville CSA. Most of the CSA is upwind of Kenosha County on high ozone days and contributes to high ozone concentrations in Kenosha County.

1.3. Status of Ozone Air Quality

Ozone monitoring data for the most recent three years, 2013 through 2015, demonstrate that the air quality meets the 2008 ozone NAAQS in the Chicago 11-county nonattainment area, as discussed in more detail in Section 3. In addition, total summer emissions of ozone precursors (nitrogen oxides, NO_x, and volatile organic compounds, VOC) are projected to continue to decline. As a result, the Wisconsin Department of Natural Resources (WDNR) expects maintenance of the standard as discussed in sections 4 and 7, justifying a redesignation to attainment for Wisconsin's portion of the nonattainment area based on Section 107(d)(3)(E) of the CAA.

1.4. Requirements for Redesignation and Overview of this Redesignation Request

Section 107(d)(3) of the CAA establishes the following criteria to meet in order for an area to be considered for redesignation of a NAAQS:

- (a) A determination by EPA that the area has attained the NAAQS;
- (b) A fully approved SIP for the area under Section 110(k) of the CAA;

² EPA designated most areas based on 2008-2010 air monitoring data. However, Illinois certified its 2011 ozone monitoring data for the Chicago area early and submitted this data to EPA for consideration. This delayed the designation process for this area, which was designated nonattainment via a separate rulemaking two months after all other areas.

- (c) A determination by EPA that the improvement in air quality is due to permanent and enforceable reductions in emissions;
- (d) A determination that all applicable requirements for the area under Section 110 and Part D of the CAA have been met;
- (e) A fully approved maintenance plan, including a contingency plan, for the area under Section 175(A) of the CAA.

Section 110 and Part D of the CAA list a number of criteria that must be met prior to consideration for redesignation of nonattainment areas to attainment. In addition, EPA has published detailed guidance in a document entitled “Procedures for Processing Requests to Redesignate Areas to Attainment,” issued September 4, 1992, to EPA Regional Air Directors. This document is hereafter referred to as “Redesignation Guidance.” This Redesignation Request and Maintenance Plan is based on this Redesignation Guidance, supplemented by additional guidance received from staff at EPA Region V.

This document shows that the Wisconsin portion of the Chicago 11-county nonattainment area has met these CAA criteria as demonstrated by all of the following:

- Ozone monitoring data demonstrate that the area has attained the NAAQS (criterion (a), addressed in Section 3).
- Emissions inventories for the nonattainment base year (2011) and attainment year (2014), in combination with a discussion of the control measures in place, indicate that the improvement in air quality is consistent with observed reductions in NO_x and VOC inventories and resulted substantially due to these permanent and enforceable emissions reductions (criterion (c), addressed in Sections 4 and 6).
- Projected emissions inventories for the maintenance years (2020 and 2030), modeled projections of maintenance ozone concentrations, and a contingency plan serve as a complete maintenance plan (criterion (e), addressed in Sections 4 and 7).
- Transportation conformity budgets and a description of how the state has met other Section 110 and Part D CAA requirements fulfill the state’s remaining requirements for a redesignation request (criteria (b) and (d), addressed in Sections 2 and 5).

2. CAA SECTION 110(a) AND PART D REQUIREMENTS

As a precondition to redesignation of a nonattainment area to attainment, the CAA requires EPA to determine that the state has met all applicable requirements under section 110 and part D of Title I of the CAA (per CAA Section 107(d)(3)(E)(v)) and that the state has a fully approved SIP under Section 110(k) for the area (per CAA Section 107(d)(3)(E)(ii)).

2.1. Satisfying CAA Section 110(a) General SIP Requirements

Section 110(a) of the CAA contains the general requirements for a SIP. Section 110(a)(2) provides that the implementation plan submitted by a state must have been adopted by the state after reasonable public notice and hearing, and, among other things, must:

- Include enforceable emission limitations and other control measures, means or techniques necessary to meet the requirements of the CAA;
- Provide for establishment and operation of appropriate devices, methods, systems, and procedures necessary to monitor ambient air quality;
- Provide for implementation of a source permit program to regulate the modification and construction of any stationary source within the areas covered by the plan;
- Include provisions for the implementation of part C, Prevention of Significant Deterioration (PSD), and part D, New Source Review (NSR) permit programs;
- Include criteria for stationary source emission control measures, monitoring, and reporting; and
- Include provisions for air quality modeling; and provide for public and local agency participation in planning and emission control rule development.

Wisconsin submitted a Section 110 “infrastructure SIP” (I-SIP), exclusive of the interstate transport component, for the 2008 ozone NAAQS (along with the 2010 NO₂ and SO₂ NAAQS) to EPA on June 20, 2013, with an additional clarification submitted on January 28, 2015. In a September 11, 2015 final rulemaking (80 FR 54725), EPA approved most elements of Wisconsin’s I-SIP. EPA did not take action on three components related to the PSD requirements, transport provisions, and state board requirements.

Wisconsin is addressing these three I-SIP components, as follows.

- Most elements relating to Wisconsin’s PSD program were approved October 6, 2014 (79 Fed. Reg. 60,064). WDNR submitted additional information to EPA on February 11, 2016. Wisconsin expects approval of the February 11, 2016 addition by no later than December 2016.
- The transport provisions are addressed by EPA’s proposed Cross-State Air Pollution Rule (CSAPR) update (Docket # EPA-HQ-OAR-2015-0500).

- EPA approved Wisconsin's state board requirements under section 128 of the CAA on January 21, 2016 (81 Fed. Reg. 3,334).

The I-SIP requirements not yet approved by EPA continue to apply to Wisconsin regardless of the designation of any one particular area in the state. Thus, because the state remains subject to these requirements even after redesignation to attainment, these requirements should not constrain action on Wisconsin's redesignation request. Appendix 1 includes both of Wisconsin I-SIP submittals, EPA's partial approval of the I-SIP, and submittal documents and approvals, as applicable, for the additional components. These submissions by Wisconsin along with EPA's approvals demonstrate compliance with the CAA Section 110 requirements.

2.2. Satisfying CAA Part D Requirements

CAA Title I, Part D, Subpart 1 sets forth the basic nonattainment requirements applicable to all nonattainment areas. Subpart 2 of Part D, which includes Section 182 of the CAA, establishes additional required provisions for ozone nonattainment areas based on their level of nonattainment classification

On May 4, 2016, EPA reclassified the Chicago 11-county nonattainment area to a classification of moderate. This same rulemaking established that the additional moderate nonattainment area SIP elements for areas "bumped up" to moderate status must be submitted by January 1, 2017. Guidance from EPA declares that in submitting a redesignation request, states must meet all Part D requirements that were applicable at the time the redesignation request was submitted.³ Since the state is submitting this redesignation request prior to January 1, 2017, the state must meet the requirements for marginal nonattainment areas and any moderate classification elements that would come due prior to a completeness determination for the redesignation. The state is not required to submit the SIP elements for moderate nonattainment areas that are related only to a showing of attainment.⁴ Approval of this redesignation request would suspend these non-mandated requirements permanently for the 2008 ozone standard. WDNR anticipates approval of this redesignation request by EPA before these elements would come due (on January 1, 2017).

Subpart 1 Requirements

Note that the requirements for Sections 172(c)(1), 172(c)(2), and 172(c)(6) are not applicable since the area has reached attainment prior to their due date, as discussed above and in footnote 4.

Section 172(c)(3) requires submission and approval of a comprehensive, accurate and complete inventory of actual emissions for the area. This requirement was superseded by the inventory requirement in Section 182(a)(1), discussed below.

³ "Procedures for Processing Requests to Redesignate Areas to Attainment," memo from John Calcagni to EPA Regional Air Directors, September 4, 1992.

⁴ The additional moderate nonattainment area requirements suspended pending continued attainment air quality include the requirements to submit an attainment demonstration and associated reasonably available control measures (RACM) (CAA Section 172(c)(1) and (c)(6)), reasonable further progress (RFP) requirements (CAA Section 172(c)(2)), contingency measures (CAA Section 172(c)(9)), and other planning SIP elements related to attainment. Moderate area RACT updates would be suspended only with full EPA approval of the redesignation to attainment.

Section 172(c)(4) requires the identification and quantification of allowable emissions for major new and modified stationary sources in an area. Section 172(c)(5) requires source permits for the construction and operation of new and modified major stationary sources in the nonattainment area. Wisconsin has an approved NSR program that meets these requirements. Furthermore, after redesignation, PSD requirements will apply. Wisconsin already has an approved PSD program. EPA approved provisions in Wisconsin's PSD rule relating to NO_x as a precursor to ozone on October 6, 2014. An additional submittal to EPA on February 11, 2016 related to PSD provisions is pending EPA approval.

Section 172(c)(7) requires the SIP to meet the applicable provisions of CAA Section 110(a)(2). As noted in the previous section, Wisconsin submitted an affirmation of meeting the Section 110(a) requirements to the EPA on June 20, 2013, with a clarification submitted on January 28, 2015. EPA approved this submittal on September 11, 2015.

Section 176(c) of the CAA requires states to establish criteria and procedures to ensure that federally supported or funded activities, including highway projects, conform to the air quality planning goals in the applicable SIPs. The requirement to determine conformity applies to transportation plans, programs, and projects developed, funded, or approved under Title 23 of the U.S. Code and the Federal Transit Act (transportation conformity) as well as to all other federally-supported or funded projects (general conformity). EPA interprets the conformity SIP requirements as not applying for purposes of evaluating a redesignation request under Section 107(d) because state conformity rules are still required after redesignation and federal conformity rules apply where state rules have not been approved. Section 5 of this document includes transportation conformity budgets that, upon approval by EPA, will be required for use in future transportation planning efforts.

Subpart 2 Section 182(a) Requirements

Section 182(a)(1) requires the submission of a comprehensive emissions inventory. An emissions inventory is included in Section 4 of this redesignation request.

Section 182(a)(2) requires the submission of certain corrections to VOC Reasonably Available Control Technology (RACT) rules, vehicle inspection and maintenance (I/M) programs and permitting programs. These corrections were addressed for the Kenosha County portion of the nonattainment area under the 1-hour ozone standard and do not need to be addressed again under the 2008 8-hour standard.

Section 182(a)(3)(B) requires the submission of an emission statement SIP. Section 8 of this submittal affirms that the SIP contains approved emission statement rules which will remain in place after the area is redesignated to attainment of the 2008 ozone standard.

When EPA approves the enclosed emissions inventory, Wisconsin will meet all of the applicable SIP requirements for the purposes of redesignation.

3. OZONE MONITORING

3.1. Ozone Monitoring Network

There are currently 22 ozone monitors operating in the Chicago 11-county nonattainment area. WDNR operates two of these monitors in eastern Kenosha County (Figure 3.1). The Chiwaukee Prairie monitor along the lakeshore has measured ozone concentrations since 1988, whereas the Kenosha Water Tower monitor is a special-purpose monitor that began collecting data in 2013. In addition, Illinois operates 15 monitors, and Indiana operates five monitors (Figure 3.1). Table 3.1 shows the data collected over the last three years at these monitors.

3.2. Ambient Ozone Monitoring Data

EPA's requirements for ozone air monitoring data are contained in Appendix P to 40 CFR Part 50 ("Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone"). The level of the 2008 ozone NAAQS is 0.075 ppm. A monitoring site measures compliance with the 2008 ozone NAAQS if it meets the following conditions:

1. There are three complete years of ozone monitoring data at the site.
2. The 3-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is equal to or less than 0.075 ppm. This value is called the "design value".

For an area to attain the standard, the design values for all monitoring sites within that area must be equal to or lower than the NAAQS.

Table 3.1 shows the fourth-highest daily maximum 8-hour average values for all ozone monitors in the Chicago 11-county nonattainment area for the years 2013-2015, along with the design values for 2013-2015. During this time period, three complete years of data were collected at each site (see Section 3.4), and no design value exceeded the standard. This data confirms that the entire nonattainment area attained the 2008 ozone NAAQS in 2013-2015. The monitored design values are shown graphically in Figure 3.2. Wisconsin's Chiwaukee Prairie monitor had the highest design value in the nonattainment area, with a value of 0.075 ppm. Illinois' Zion monitor, the monitor of record for the Chicago area nonattainment designation,⁵ showed a 2013-2015 design value of 0.071 ppm, the second highest design value in the area.

Atmospheric ozone concentrations have declined under equivalent conditions as a result of decreasing emissions of ozone precursors⁶ resulting from a number of permanent and enforceable control measures implemented during the time period associated with the 2008 ozone standard, as discussed in more detail in Sections 4 and 6. Figures 3.3 and 3.4 show the trend in ozone design values and monitored 4th high 8-hour average concentrations over the past eight years. This trend analysis shows that while design values increased for the 2009-2011 and 2010-2012 periods, almost all monitors have been steadily decreasing since the peak 2010-2012 design value.

⁵ The Chicago 11-county nonattainment area was designated nonattainment based on the 2009-2011 design value at the Zion monitor. See footnote 2 for more information on this process.

⁶ Ozone is formed from the reaction of NO_x and VOCs.

Appendix 2 includes a table listing the fourth-highest 8-hour ozone concentrations for the years 2008-2015 for all monitors in the Chicago 11-county nonattainment area. This appendix also includes design values extending back to the 2008-2010 design value year.

Figure 3.1. Map of the Chicago-Naperville, IL-IN-WI, 2008 ozone nonattainment area (“Chicago 11-county nonattainment area”), with monitoring locations shown.



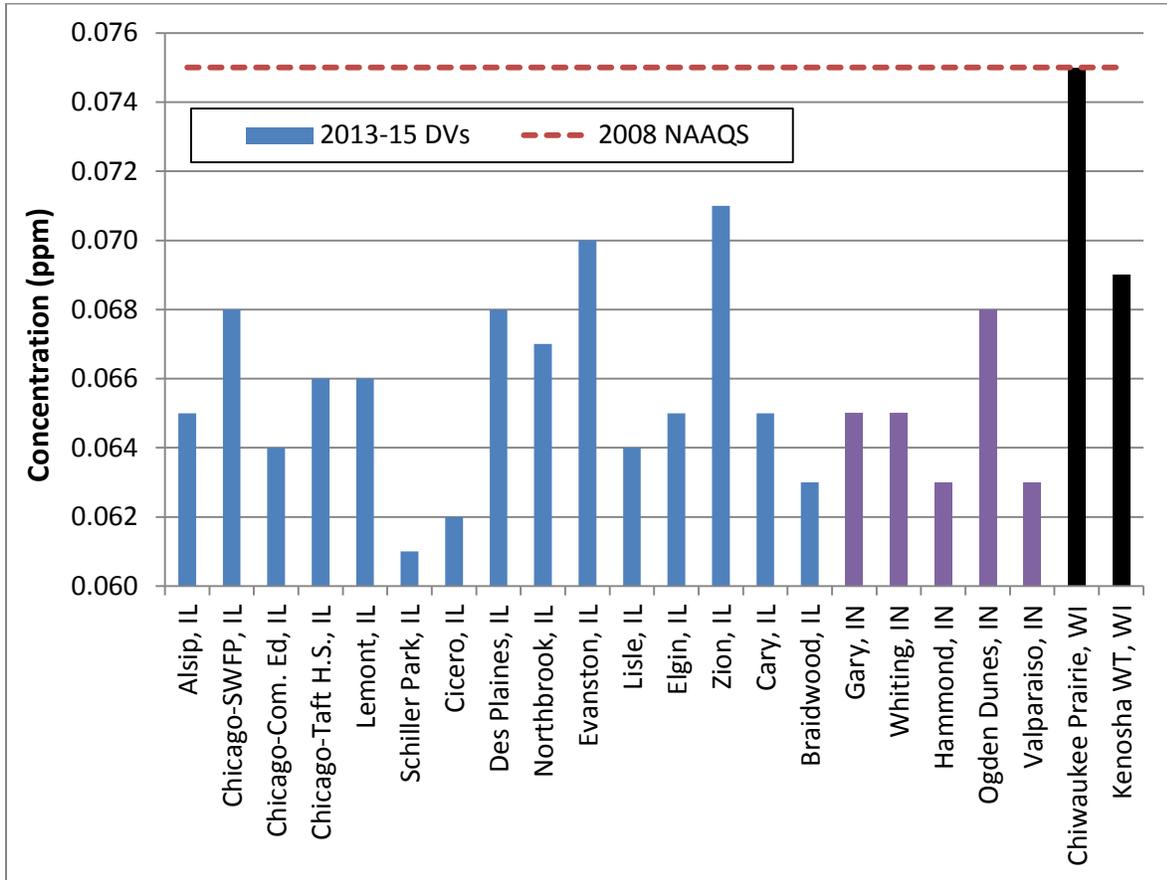
Table 3.1. Monitoring data for the Chicago 11-county nonattainment area, showing annual fourth-highest 8-hour concentrations and design values (DV) in parts per million (ppm). Data were downloaded from EPA's Air Quality System (AQS) database.

Wisconsin			4th high 8-hr ozone (ppm)			2013-15 DV (ppm)
Site ID	County	Site	2013	2014	2015	
55-059-0019	Kenosha	Chiwaukee Prairie Kenosha Water	0.075	0.076	0.075	0.075
55-059-0025	Kenosha	Tower	0.069	0.070	0.068	0.069

Illinois			4th high 8-hr ozone (ppm)			2013-15 DV (ppm)
Site ID	County	Site	2013	2014	2015	
17-031-0001	Cook	Alsip	0.064	0.066	0.066	0.065
17-031-0032	Cook	Chicago-SWFP	0.071	0.067	0.066	0.068
17-031-0076	Cook	Chicago-Com. Ed	0.062	0.067	0.065	0.064
17-031-1003	Cook	Chicago-Taft H.S.	0.066	0.065	0.068	0.066
17-031-1601	Cook	Lemont	0.064	0.070	0.066	0.066
17-031-3103	Cook	Schiller Park	0.062	0.063	0.058	0.061
17-031-4002	Cook	Cicero	0.063	0.063	0.061	0.062
17-031-4007	Cook	Des Plaines	0.067	0.069	0.068	0.068
17-031-4201	Cook	Northbrook	0.069	0.065	0.068	0.067
17-031-7002	Cook	Evanston	0.069	0.072	0.070	0.070
17-043-6001	DuPage	Lisle	0.063	0.064	0.067	0.064
17-089-0005	Kane	Elgin	0.064	0.066	0.065	0.065
17-097-1007	Lake	Zion	0.072	0.073	0.070	0.071
17-111-0001	McHenry	Cary	0.065	0.067	0.064	0.065
17-197-1011	Will	Braidwood	0.061	0.064	0.064	0.063

Indiana			4th high 8-hr ozone (ppm)			2013-15 DV (ppm)
Site ID	County	Site	2013	2014	2015	
18-089-0022	Lake	Gary	0.064	0.067	0.064	0.065
18-089-0030	Lake	Whiting	0.062	0.065	0.070	0.065
18-089-2008	Lake	Hammond	0.063	0.067	0.060	0.063
18-127-0024	Porter	Ogden Dunes	0.069	0.071	0.066	0.068
18-127-0026	Porter	Valparaiso	0.063	0.067	0.060	0.063

Figure 3.2. 2013-2015 design values (DVs) for all ozone monitors in the Chicago 11-county nonattainment area, with Wisconsin’s monitors shown in black and the 2008 ozone NAAQS level shown for comparison.



3.3. Quality Assurance

All available 2013-2015 data for the 22 ozone monitoring sites listed in Table 3.1 have been quality assured and archived in EPA’s Air Quality System (AQS). WDNR has an approved Ozone Quality Assurance Plan and quality assures monitoring data in accordance with 40 CFR Part 58 to assure that the quality of the monitoring data submitted to the AQS meets federal criteria. Illinois Environmental Protection Agency (IEPA) and Indiana Department of Environmental Management (IDEM) have also quality assured the data for their monitors in the nonattainment area in accordance with 40 CFR Part 58 and their state quality assurance plans. These full datasets have been certified and are available to the public.

Figure 3.3. Design value trends for ozone monitors in the Chicago 11-county nonattainment area. Data are not shown for monitors with fewer than three consecutive design values.

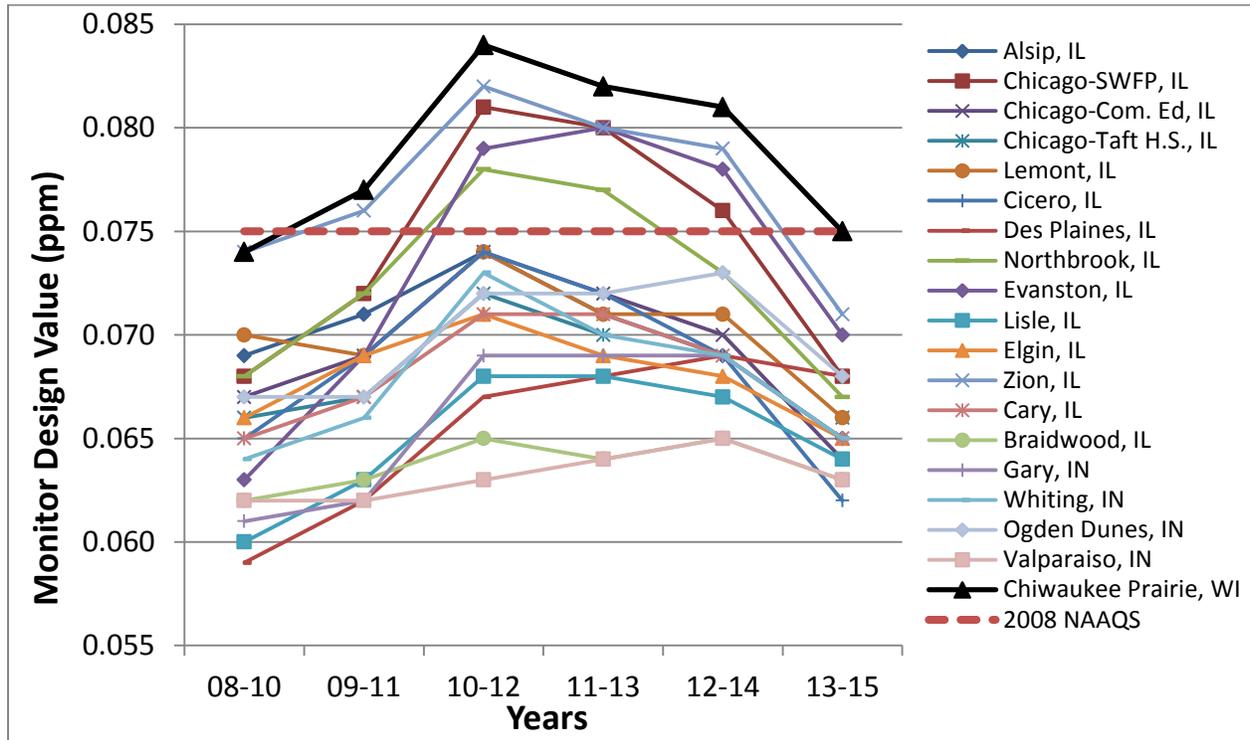
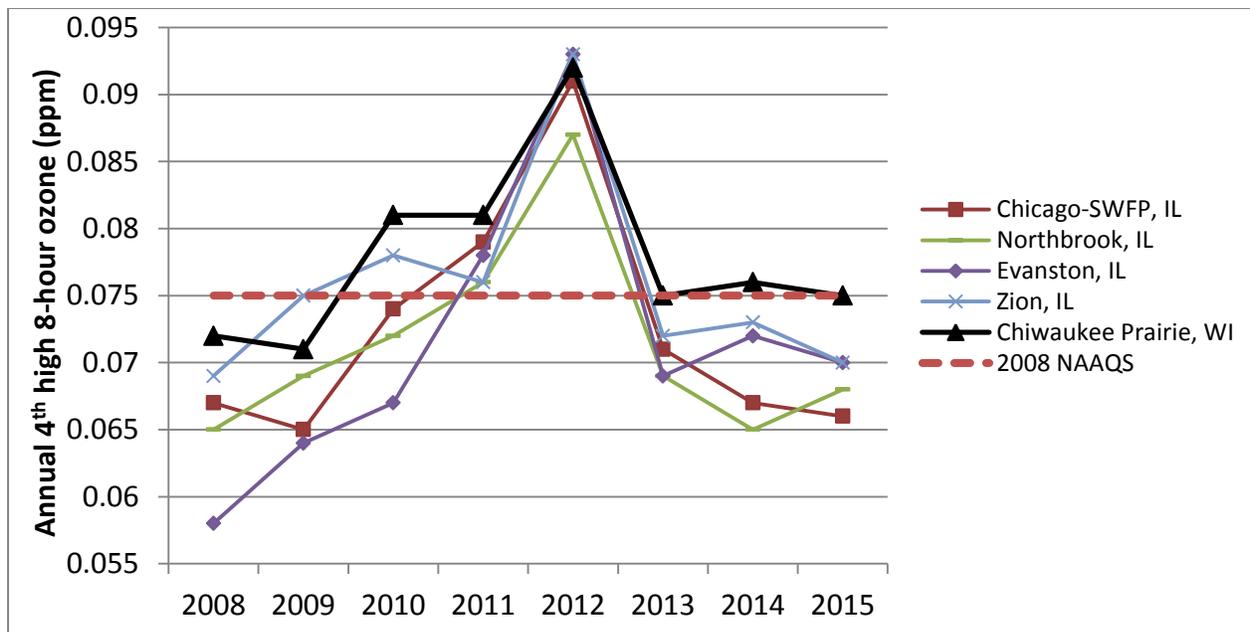


Figure 3.4. Trends in the fourth high daily maximum 8-hour ozone concentrations at monitors whose design values exceeded the 2008 ozone NAAQS.



3.4. Data Completeness

The data from all ozone monitoring sites meet EPA requirements for completeness (as described in Appendix P to 40 CFR Part 50) for the 3-year period of 2013-2015. EPA requires that daily maximum 8-hour average concentrations be available for at least 90 percent of the days in the ozone season for a given site over the 3-year period and that no site have less than 75 percent data completeness for a given year. The overall average data completeness for all sites was 96.1 percent. All sites individually averaged at least 90.7 percent completeness for the 3-year period, and no site was less than 80 percent complete in any given year.

3.5. Commitment to Continued Monitoring

WDNR commits to continue monitoring ozone levels in the Wisconsin portion of the Chicago 11-county nonattainment area. WDNR will discuss any changes in siting that may become necessary with EPA Region V staff. WDNR will continue to quality assure the monitoring data to meet the requirements of 40 CFR 58 and will enter all data into AQS on a timely basis in accordance with federal guidelines. Ozone concentration data will continue to be available on the WDNR website,⁷ providing real-time data and information about any NAAQS exceedances to the public. IEPA and IDEM maintain similar websites with monitoring data for their states and are making similar commitments to continued monitoring in their redesignation requests.

⁷ Select “View Current Air Quality” from the webpage <http://dnr.wi.gov/topic/AirQuality>.

4. EMISSIONS INVENTORIES

4.1. Overview and Choice of Inventory Years

The CAA requires that a state must demonstrate that the improvement in ozone air quality between the nonattainment and attainment years is based on permanent and enforceable emissions reductions in order for a nonattainment area to be redesignated to attainment. In this section, WDNR is submitting comprehensive inventories of actual and projected emissions that contribute to ozone concentrations in the nonattainment area. These inventories fulfill the demonstration of improvement required under the CAA. Section 6 documents the specific programs responsible for making such emissions reductions permanent and enforceable. These programs are the foundation for the actual emission inventory data discussed in this section. It should be noted that these emission budgets do not result in a limitation on emissions for any specific source or source category in the future. The emission budgets are a snapshot of current emission levels and a best estimate of future emission levels used to demonstrate relative changes in total emissions and future maintenance of the standard.

EPA's Redesignation Guidance requires a state to submit emissions inventories for the following years:

1. A year in which the standard was not attained ("nonattainment year").
2. A year in which the standard was attained ("attainment year").
3. A year at least 10 years beyond the attainment year to demonstrate maintenance ("maintenance year").
4. An intermediate year between the attainment year and maintenance year ("interim year").

WDNR has developed the following NO_x and VOC emission inventories for the eastern Kenosha County area as part of the redesignation request:

- 2011 Nonattainment Year Emissions Inventory
- 2014 Attainment Year Emissions Inventory
- 2020 Interim Maintenance Year Emissions Inventory
- 2030 Maintenance Year Emissions Inventory

The Chicago 11-county nonattainment area monitored nonattainment in 2011 for the 2008 8-hour ozone NAAQS. In contrast, the area monitored attainment concentrations of ozone for the design value year centered on 2014 (i.e., 2013-2015). Wisconsin is required to demonstrate continued maintenance of the NAAQS for ten years after redesignation. As part of this demonstration, the WDNR is providing a projection of emission for 2020 as the interim projection year and 2030 as the maintenance year. EPA approved the choice of these years in discussions with the three states in the Chicago 11-county nonattainment area. The emission projections through 2030 are relied upon in the maintenance demonstration presented in section 7.

Illinois and Indiana have also developed emissions inventories for these same years. These inventories are presented and discussed in Section 4.5.

Table 4.1 provides a summary of the eastern Kenosha County emission inventories (in tons per summer day, or tpsd) for NO_x and VOC. This table also shows that the Wisconsin portion of the Chicago 11-county nonattainment area contributes less than 4% of total NO_x emissions and less than 2% of total VOC emissions for the Chicago 11-county nonattainment area.

Table 4.1. Eastern Kenosha County NO_x and VOC emissions, along with percent of Chicago 11-county nonattainment area emissions from eastern Kenosha County.

Pollutant	Emissions (tpsd) (% of Chicago 11-county nonattainment area)			
	2011 nonattainment year	2014 attainment year	2020 interim year	2030 maintenance year
NO _x	19.11 (2.4%)	17.52 (2.7%)	15.73 (3.4%)	14.55 (3.8%)
VOC	9.30 (1.5%)	8.32 (1.6%)	8.20 (1.8%)	7.97 (1.9%)

The remainder of this document presents the emission inventories by sector (i.e., point, area, onroad and nonroad) for eastern Kenosha County and the supporting methodology used to develop them. A comparison of the eastern Kenosha County emission inventories to the emission inventories from the Illinois and Indiana portions of the nonattainment area is also provided.

4.2. Nonattainment Year (2011) and Attainment Year (2014) Inventories

WDNR developed the following emissions information to satisfy EPA’s redesignation requirements to submit nonattainment and attainment year inventories for NO_x and VOC. EPA has approved Wisconsin’s 2011 emission inventories for eastern Kenosha County and other nonattainment areas under the 2008 8-hour ozone standard (81 FR 11673). The following is a description of the methodologies used to develop the sector-specific emission inventory estimates. Appendix 3 includes a more thorough discussion of the methodology used to estimate emissions for 2011 and 2014. Tables 4.2 and 4.3 show the NO_x and VOC emissions (in tpsd) in 2011 and 2014 for the different sectors. Emissions decreased by 8% for NO_x and by 11% for VOC between 2011 and 2014 for eastern Kenosha County. These reductions are primarily due to emission decreases in the onroad and nonroad mobile sectors provided by the federal and state mobile source control programs detailed in Section 6.3.

Table 4.2. Eastern Kenosha County NO_x and VOC emissions (tpsd) for nonattainment year 2011.

Pollutant	Point - EGU	Point – Non-EGU	Area	Onroad	Nonroad	Total
NO _x	11.05	0.09	1.09	4.83	2.05	19.11
VOC	0.54	0.18	4.78	2.30	1.50	9.30

Table 4.3. Eastern Kenosha County NO_x and VOC emissions (tpsd) for attainment year 2014.

Pollutant	Point - EGU	Point – Non-EGU	Area	Onroad	Nonroad	Total
NO _x	10.75	0.10	1.08	3.87	1.72	17.52
VOC	0.56	0.10	4.71	1.77	1.18	8.32

Point Source Inventory

The Pleasant Prairie coal-fired power plant is the only EGU point source facility in eastern Kenosha County. For this source, WDNR used the maximum daily heat input reported in EPA's Clean Air Market Division (CAMD) database as a conservative estimate of summer day heat input during each of the 2011 and 2014 ozone seasons. The summer day emissions were then calculated by multiplying the maximum daily heat input by an average NO_x and VOC emission rate. Appendix 5 provides the detailed methodology used to calculate EGU summer day emissions.

The 2011 and 2014 emission inventories for non-EGU point sources were tabulated using the emissions data reported annually by each facility operator to the WDNR air emissions inventory (AEI)⁸. The AEI calculates emissions for each individual emissions unit or process line by multiplying fuel or process throughput by the appropriate emission factor that is derived from mass balance analysis, stack testing, continuous emissions monitoring, engineering analysis, or EPA's Factor Information Retrieval (FIRE) database. The emission calculations in the AEI also account for any operating control equipment.

Non-EGU facilities located in eastern Kenosha County were identified using the Geographic Information System (GIS) coordinates reported for each facility in the EIA. Appendix 6 provides a list of non-EGU point source emissions by facility identification number (FID) and facility name for these years. These non-EGU point source facilities are assumed to operate evenly over 365 days each year. Therefore, summer day emissions are derived by dividing each facility's annual reported emissions by 365 days.

Area Source Inventory

For 2011, area source emission estimates were based on calculations used for submission to the National Emissions Inventory (NEI). EPA has approved Wisconsin's 2011 NEI data. These emissions were typically calculated using population, gasoline consumption, employment, crop acreage and other activity surrogates associated with the source categories. These categories mainly include industrial, commercial and institutional fuel combustion, solvent utilization, residential wood combustion and agricultural emissions. For each source category, any point source activity or emissions were subtracted from total category-specific activity or emissions to calculate area category-specific emissions and avoid double counting. Emission factors were derived from local data, local or national surveys and EPA procedural guidance for the

⁸ Under Wisconsin rule NR 438.03, Wis. Adm. Code, a facility operator is required to report NO_x or VOC emissions data to the WDNR for any facility emitting 5 or more tons of NO_x or 3 or more tons of VOC per year.

development of emission inventories. Appendix 7 includes tables of area source emissions by source category.

2014 NEI emissions will not be finalized until summer 2016 for most area source categories. Accordingly, 2014 area source emissions were estimated using data interpolation between 2011 NEI emissions and EPA's 2017 modeling inventory. 2017 projections were obtained from EPA's 2011 Emissions Modeling Platform, Version 6.2, which includes projections for the years 2017 and 2025.⁹

In order to obtain the area source emissions for eastern Kenosha County, the whole county emission estimates were allocated to the partial county ozone nonattainment area based on population data. The Kenosha County population for 2014 was estimated by interpolating the population between 2010 census data and 2015 population projections from the Wisconsin Department of Administration. The partial-county population was identified based on the relative population of the Minor Civil Divisions in the nonattainment area compared with the entire county. For 2011 and 2014, 77% of the county's population was estimated to live in the nonattainment area.

Onroad Inventory

The 2011 and 2014 onroad emission estimates were developed using the EPA's current mobile source emissions model (MOVES2014a). All estimates were made in accordance with current EPA technical guidance. The key inputs used for the MOVES2014a modeling include:

- Vehicle age distributions based on registration data from the Wisconsin Department of Transportation;
- Detailed transportation data for the sub-county area provided by the Southeastern Wisconsin Regional Planning Commission (SEWRPC), including vehicle miles of travel (VMT) by vehicle class, road class and hour of day, and average speed distributions; and
- Control measures, including the Wisconsin Vehicle Inspection and Maintenance (I/M) Program and reformulated gasoline.

Hot summer day temperatures were input to the model (minimum 70 degrees F, maximum 94 degrees F). This temperature range has been used for all onroad ozone SIP modeling in southeastern Wisconsin since the 1990 CAA Amendments and is based on a WDNR analysis of temperatures on high ozone days.

Appendix 9 provides detailed listings of the estimated onroad emissions and activity data.

Nonroad Inventory

For the purpose of inventory calculation, nonroad mobile sources are divided into two major groups:

- Commercial Marine, Aircraft and Rail Locomotive (MAR)
- All other nonroad categories

⁹ <http://ftp.epa.gov/EmisInventory/2011v6/v2platform/2017emissions/>

Nonroad categories other than MAR include:

- Recreational vehicles
- Construction equipment
- Industrial equipment
- Lawn and garden equipment
- Agricultural equipment
- Commercial equipment
- Logging equipment
- Underground mining equipment
- Oil field equipment
- Pleasure craft
- Railway maintenance equipment

The 2011 and 2014 nonroad emissions for the non-MAR categories were developed using EPA's MOVES2014a model using hot summer day temperatures. The model was run for Kenosha County for the months of June, July and August. Hot summer day emissions were calculated by dividing the total emissions over these three months by 92 (the number of days in the three months). Emissions were then allocated to the eastern Kenosha County area based on surrogates such as population, land area and water area, depending on the category.

Annual emissions for the MAR categories were obtained from EPA's 2011 Emissions Modeling Platform, Version 6.2. This modeling platform includes annual emission estimates for the year 2011 and projections for the years 2017 and 2025. Year 2014 emissions were calculated by linearly interpolating between 2011 and 2017. Countywide emissions were allocated to the sub-county area based on airport location for aircraft and rail link location for rail locomotives. All commercial marine emissions were allocated to the sub-county area, since those emissions originate from Lake Michigan. Summer day emissions were estimated by applying annual-to-summer day ratios for each of the three MAR categories provided in the modeling inventory from the Lake Michigan Air Directors Consortium (LADCO) for the year 2007.

Appendix 8 provides detailed listings of the estimated nonroad emissions data for over 200 subcategories.

4.3. Maintenance Year Inventories (2020 and 2030)

WDNR developed emissions information to satisfy the EPA redesignation requirements to submit an interim maintenance year and maintenance year inventory for NO_x and VOC. The following is a description of the methodologies used to develop the sector-specific emission inventory estimates. Appendix 4 includes more information on emissions projection methodology. Tables 4.4 and 4.5 show the projected NO_x and VOC emissions (in tpsd) in 2020 and 2030 for the different sectors. These inventories project that NO_x and VOC emissions will continue to decrease in future years. This analysis shows that eastern Kenosha County is expected to contribute towards maintaining the air quality standard in the Chicago 11-county nonattainment area for ten years into the future.

Table 4.4. Eastern Kenosha County NO_x and VOC emissions (tpsd) for interim year 2020.

Pollutant	Point - EGU	Point – Non-EGU*	Area	Onroad	Nonroad	Total
NO _x	10.75	0.25	1.18	2.28	1.27	15.73
VOC	0.56	0.36	5.14	1.23	0.91	8.20

* Includes projections of emissions for both existing sources and new/modified sources.

Table 4.5. Eastern Kenosha County NO_x and VOC emissions (tpsd) for maintenance year 2030.

Pollutant	Point - EGU	Point – Non-EGU*	Area	Onroad	Nonroad	Total
NO _x	10.75	0.25	1.30	1.21	1.04	14.55
VOC	0.56	0.36	5.51	0.66	0.88	7.97

* Includes projections of emissions for both existing sources and new/modified sources.

Point Source Inventory

As previously stated, the Pleasant Prairie power plant is the only EGU point source in eastern Kenosha County. To project summer day emissions through 2030, WDNR applied the maximum summer day heat input used in calculating the 2014 summer day emissions. This value represented the 99th percentile highest heat input day during the 2014 ozone season. The 2014 heat input value is the highest value from 2010 through 2015 and is greater than the reported maximum nominal heat input reported for the facility. Therefore, future heat input levels are not reasonably expected to exceed the 2014 heat input level. This projected heat input value was then multiplied by projected emission rates to yield projected summer day emissions. The projected NO_x emission rate is based on demonstrated emission rates since 2006 and assumes continued operation of controls. The projected VOC emission rate assumes the 2014 demonstrated emission rate will continue in the future. The details of the EGU projection methodology and calculations are provided in Appendix 5

Based on this information, NO_x emissions are projected to be 10.75 tpsd and VOC emissions to be 0.56 tpsd in both the 2020 and 2030 inventory years for the Pleasant Prairie power plant. These projected emission levels do not represent an enforceable emission requirement for daily emissions. Instead, these values represent the reasonably expected summer day maximum emissions for the EGU sector in eastern Kenosha County.

Non-EGU point source emissions are projected for 2020 and 2030 by applying growth factors to the 2011 base year inventory. These growth factors were developed from Annual Energy Outlook 2014 and 2015 industry-specific energy consumption data.^{10,11} Additional emissions for

¹⁰ Annual Energy Outlook 2014, 2014. U.S. Energy Information Administration Analysis and Projections Web site. <http://www.eia.gov/forecasts/archive/aeo14/> (accessed Feb 15, 2016).

the non-EGU sector were then factored in by projecting emissions for new and modified sources that have been or may be permitted to start operation after 2014. A more detailed description of the methodology for projecting non-EGU point source emissions is provided in Appendix 4, and a list of sources with the applied growth rates and calculated emissions is provided in Appendix 6. It should be noted that Wisconsin's approach to projecting emissions for non-EGU point sources is more conservative than Indiana's and Illinois' approaches, which rely on EPA-projected inventories that typically assume "no-growth" for non-EGU point sources.

Area Source Inventory

The 2020 and 2030 area source emission inventories were projected based on 2011 area source emissions inventories for eastern Kenosha County. These emission projections were primarily determined by applying growth and control factors developed by Alpine Geophysics to the 2011 base year inventory.¹² If growth factors were not available for a certain SCC, county-level population-based growth factors were derived based on the Wisconsin Department of Administration's Demographic Services Center population reports. Projected area source emissions can be found in Appendix 7.

Onroad Inventory

The 2020 and 2030 projected onroad emissions were developed using the MOVES2014a model, as was the case for the 2011 and 2014 emissions. Vehicle age distributions were projected using a spreadsheet program developed by the EPA. SEWRPC provided projected transportation data assuming their high economic growth scenario. The speed distributions provided by SEWRPC reflected the 5 mph speed limit increase (65 mph to 70 mph) which took effect in 2015 on certain restricted access roadways. WDNR increased the onroad mobile source portions of the 2020 and 2030 projected emissions inventories by 7.5% to account for uncertainties in future mobile source emissions, as agreed through the transportation conformity consultative process. The motor vehicle I/M program and reformulated gasoline were both assumed to remain in effect.

Detailed listings of the projected onroad emissions and activity data are provided in Appendix 9.

Nonroad Inventory

The methodology for the 2020 and 2030 projected nonroad emissions is parallel to the methodology used for the 2011 and 2014 estimates. For the non-MAR categories, the MOVES2014a model was run at hot summer day temperatures, assuming the model's default growth projections.

For the MAR categories, the 2020 emissions were linearly interpolated between the 2017 and 2025 emissions from the EPA's Version 6.2 Modeling Platform. The 2030 emissions were assumed to be equal to the 2025 Modeling Platform emissions if those 2025 emissions were less

¹¹ Annual Energy Outlook 2015, 2015. U.S. Energy Information Administration Analysis and Projections Web site. <http://www.eia.gov/forecasts/aeo/> (accessed Mar 3, 2016).

¹² Alpine Geophysics, June 2014. Project Technical Memorandum: Future Year Growth and Control Factors. Technical Report for LADCO.

than the 2017 Modeling Platform emissions. If the 2025 Modeling Platform emissions exceeded the 2017 Modeling Platform emissions, the 2030 emissions were linearly extrapolated from the 2017 and 2025 Modeling Platform emissions. Detailed listings of the projected nonroad emissions for over 200 subcategories are provided in Appendix 8.

4.4. Emission Trends

Emission trends are an important gauge for continued compliance of the ozone standard. WDNR compared actual emissions from 2014 to projected emissions from the interim year (2020) and the maintenance year (2030) for eastern Kenosha County. This data is summarized in Tables 4.6 and 4.7. A comparison of net emission changes between the 2014 inventory and projected 2020 and 2030 inventories is included. Actual emissions from 2011 are also included for reference. As mentioned in section 4.2, actual emissions for NO_x and VOC were shown to decrease from 2011 to 2014.

Table 4.6. Eastern Kenosha County comparison of NO_x emissions (tpsd) by source type.

Sector	2011 nonattainment year	2014 attainment year	2020 interim year	2030 maintenance year
Point - EGU	11.05	10.75	10.75	10.75
Point - Non-EGU*	0.09	0.10	0.25	0.25
Area	1.09	1.08	1.18	1.30
Onroad	4.83	3.87	2.28	1.21
Nonroad	2.05	1.72	1.27	1.04
TOTAL	19.11	17.52	15.73	14.55
Change from 2014 (% change)	-	-	-1.79 (-10%)	-2.97 (-17%)

* Includes projections of emissions for both existing sources and new/modified sources.

Table 4.7. Eastern Kenosha County comparison of VOC emissions (tpsd) by source type.

Sector	2011 nonattainment year	2014 attainment year	2020 interim year	2030 maintenance year
Point - EGU	0.54	0.56	0.56	0.56
Point - Non-EGU*	0.18	0.10	0.36	0.36
Area	4.78	4.71	5.14	5.51
Onroad	2.30	1.77	1.23	0.66
Nonroad	1.50	1.18	0.91	0.88
TOTAL	9.30	8.32	8.20	7.97
Change from 2014 (% change)	-	-	-0.13 (-1.5%)	-0.35 (-4.2%)

* Includes projections of emissions for both existing sources and new/modified sources.

As Table 4.6 above indicates, reductions in NO_x emissions are projected to occur in eastern Kenosha County from 2014 to 2030. The largest reductions are projected from the onroad mobile sector (2.66 tpsd), followed by nonroad mobile sector (0.68 tpsd), due to the federal and state mobile source control programs detailed in Section 6.3. Projected total NO_x emissions in eastern Kenosha County will be reduced by approximately 17% (2.97 tpsd) during the 16-year period.

By 2030, VOC emissions are projected to decrease in eastern Kenosha County by approximately 4.2% (or 0.35 tpsd) during the 16-year period (see Table 4.7). As with NO_x emissions, the largest VOC reductions are from the onroad mobile sector (1.11 tpsd) followed by the nonroad mobile sector (0.30 tpsd). These reductions help counter projected emissions increases in the area source sector (0.80 tpsd) due to projected population growth. Emissions increases are also projected from the non-EGU point source sector (0.26 tpsd) due to anticipated increases in energy consumption by existing point sources and emissions from new and modified point sources.

4.5. Comparison of Eastern Kenosha County Nonattainment Area Emissions and Total Chicago 11-county nonattainment area Emissions¹³

WDNR also compared 2011 and 2014 emissions with the maintenance year emissions for the entire Chicago 11-county nonattainment area, as summarized in Tables 4.8 to 4.9 and Figures 4.1 to 4.6. A comparison of net emission changes between the 2014 inventory and projected 2020 and 2030 inventories is also included in Tables 4.8 and 4.9.

¹³ Illinois and Indiana submitted inventory data for the years of 2011, 2014, 2020 and 2030 to WDNR on Feb. 29, 2016 and April 1, 2016, respectively. These emission inventories, in addition to inventories for eastern Kenosha County, are included in the tables and figures in section 4.5.

Table 4.8. Comparison of NO_x emissions for the Illinois, Indiana and Wisconsin portions of the Chicago 11-county nonattainment area.

Source Type	2011 nonattainment year	2014 attainment year	2020 interim year	2030 maintenance year
<i>Illinois</i>				
Point - EGU	67.41	36.64	36.16	46.81
Point - Non EGU	52.57	49.27	49.08	49.69
Area	27.13	30.66	31.17	31.58
Onroad	296.38	242.84	116.63	56.29
Nonroad	170.86	145.45	112.94	95.90
TOTAL	614.35	504.86	345.98	280.27
<i>Indiana</i>				
Point - EGU	28.44	9.82	5.06	5.44
Point - Non-EGU	66.48	62.23	65.01	62.09
Area	11.42	10.56	9.74	7.92
Onroad	34.03	27.58	14.68	7.70
Nonroad	11.43	9.87	7.83	5.34
TOTAL	151.80	120.06	102.32	88.49
<i>Wisconsin</i>				
Point - EGU	11.05	10.75	10.75	10.75
Point - Non-EGU	0.09	0.10	0.25	0.25
Area	1.09	1.08	1.18	1.30
Onroad	4.83	3.87	2.28	1.21
Nonroad	2.05	1.72	1.27	1.04
TOTAL	19.11	17.52	15.73	14.55
<i>Total Nonattainment Area</i>				
Point - EGU	106.89	57.21	51.94	62.97
Point - Non-EGU	119.14	111.60	114.34	112.03
Area	39.64	42.30	42.09	40.80
Onroad	335.24	274.29	133.59	65.20
Nonroad	184.34	157.04	122.04	102.28
TOTAL	785.25	642.44	464.01	383.28
Change from 2014 (% change)	---	---	-178.41 (-28%)	-259.13 (-40%)

Table 4.9. Comparison of VOC emissions for the Illinois, Indiana and Wisconsin portions of the Chicago 11-county nonattainment area.

Source Type	2011 nonattainment year	2014 attainment year	2020 interim year	2030 maintenance year
<i>Illinois</i>				
Point - EGU	0.62	0.74	0.63	1.05
Point - Non EGU	47.63	45.61	44.80	43.73
Area	210.04	212.28	202.38	201.40
Onroad	91.03	95.34	54.03	31.35
Nonroad	168.66	89.88	78.40	83.73
TOTAL	517.98	443.85	380.24	361.26
<i>Indiana</i>				
Point - EGU	0.62	0.36	0.15	0.16
Point - Non-EGU	17.01	19.08	16.83	16.13
Area	18.17	17.53	16.79	16.21
Onroad	12.60	10.39	5.96	3.99
Nonroad	13.37	11.13	8.33	5.34
TOTAL	61.77	58.49	48.06	41.83
<i>Wisconsin</i>				
Point - EGU	0.54	0.56	0.56	0.56
Point - Non-EGU	0.18	0.10	0.36	0.36
Area	4.78	4.71	5.14	5.51
Onroad	2.30	1.77	1.23	0.66
Nonroad	1.50	1.18	0.91	0.88
TOTAL	9.30	8.32	8.20	7.97
<i>Total Nonattainment Area</i>				
Point - EGU	1.58	1.66	1.12	1.55
Point - Non-EGU	64.82	64.79	61.99	60.22
Area	232.99	234.52	224.31	223.12
Onroad	105.93	107.50	61.22	36.00
Nonroad	183.53	102.19	87.64	89.95
TOTAL	588.85	510.66	436.28	410.85
Change from 2014 (% change)	---	---	-74.17 (-15%)	-99.60 (-20%)

Figure 4.1. Comparison of NOx emissions for the Illinois, Indiana and Wisconsin portions of the Chicago 11-county nonattainment area.

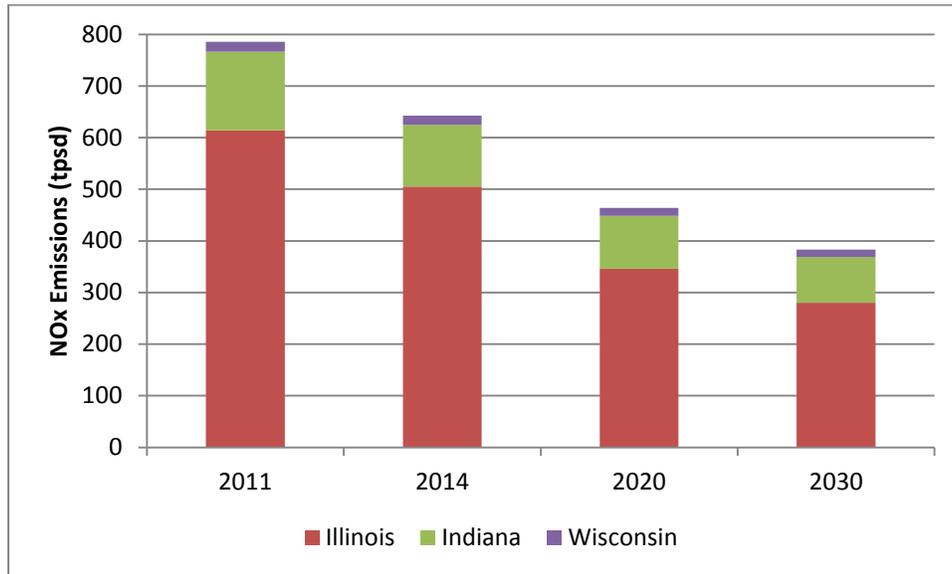


Figure 4.2. Comparison of VOC emissions for the Illinois, Indiana and Wisconsin portions of the Chicago 11-county nonattainment area.

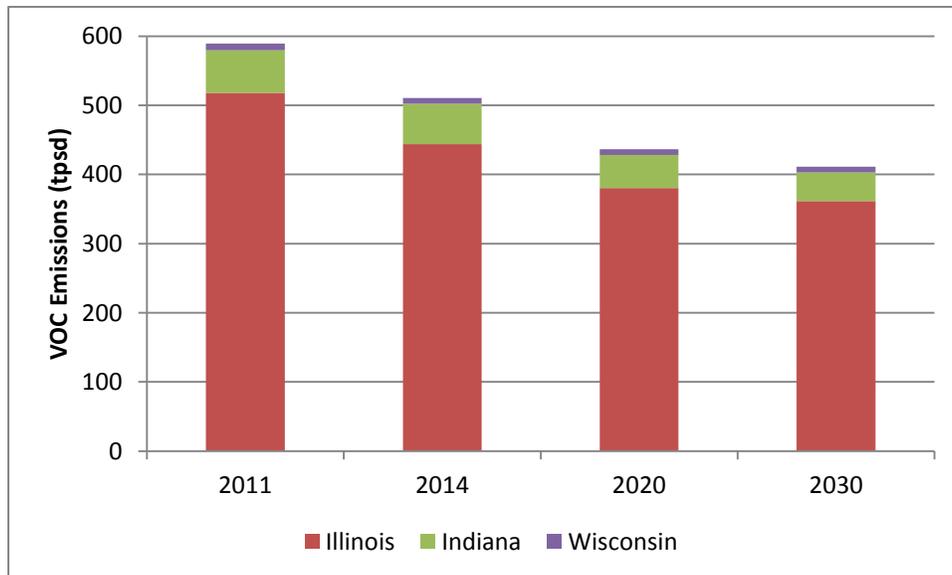


Figure 4.3. Total NOx emissions by source type for the Illinois, Indiana and Wisconsin portions of the Chicago 11-county nonattainment area.

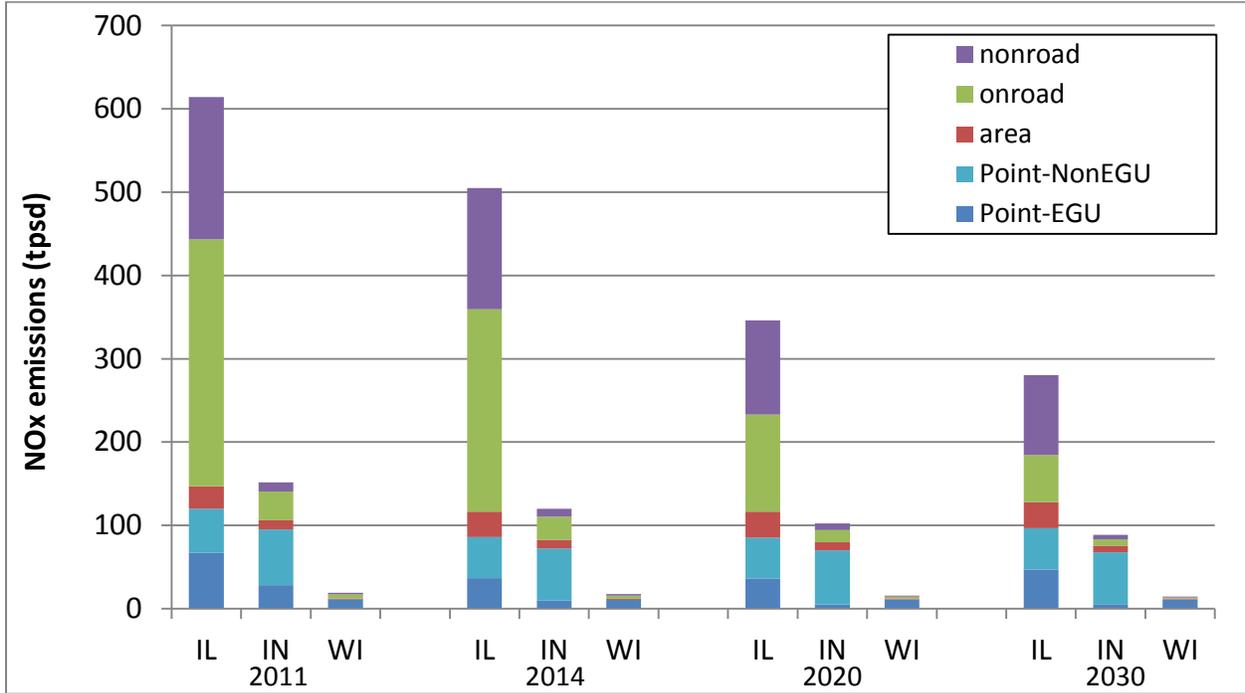


Figure 4.4. Eastern Kenosha County NOx emissions by source type for the Chicago 11-county nonattainment area.

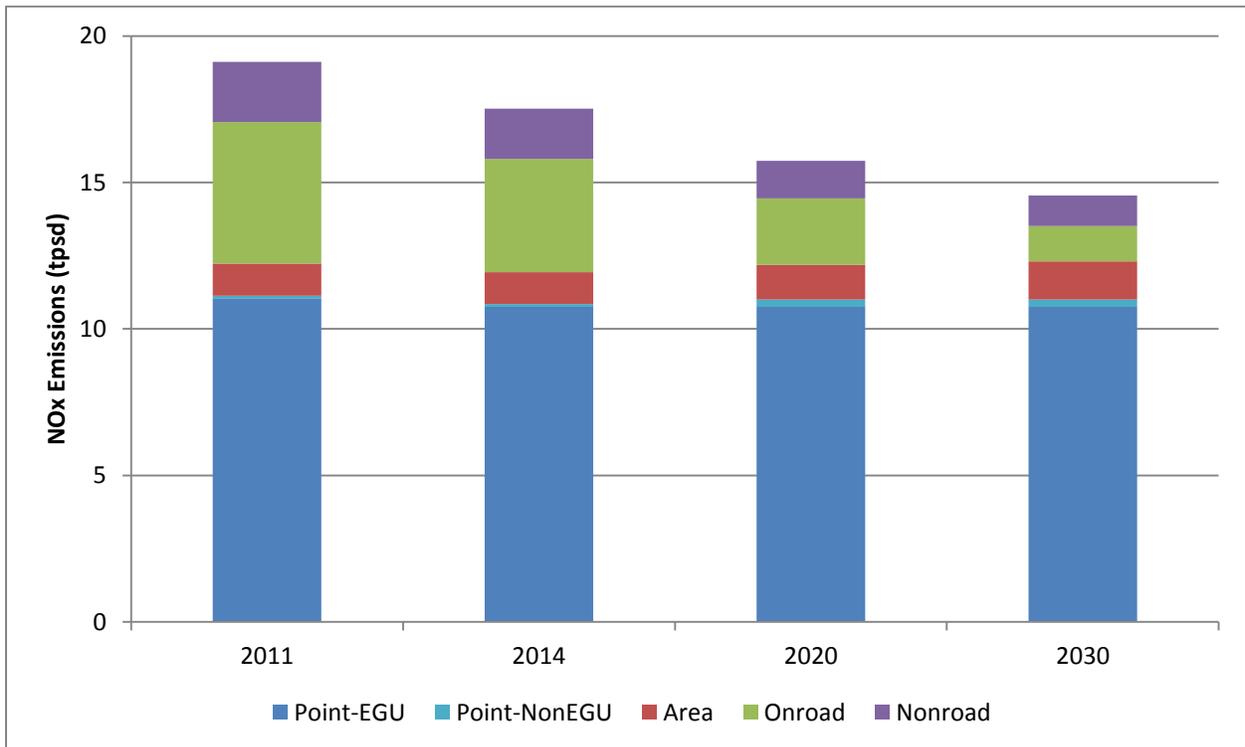


Figure 4.5. VOC emissions by source type for the Illinois, Indiana and Wisconsin portions of the Chicago 11-county nonattainment area.

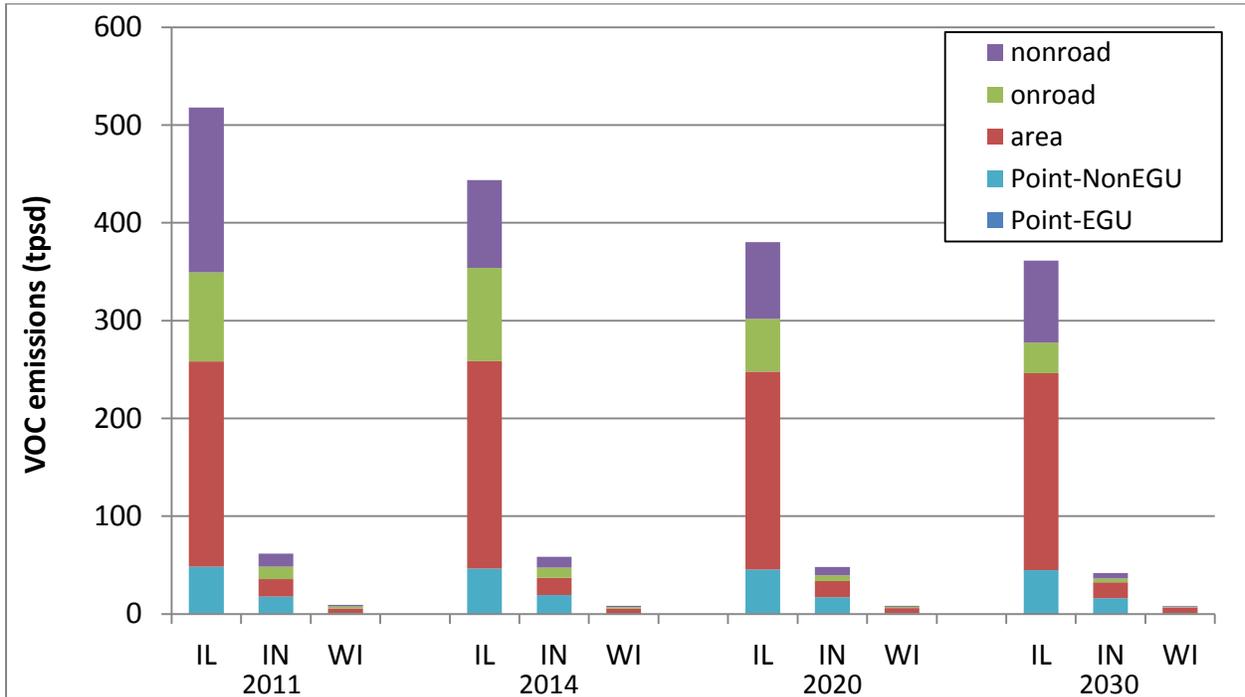
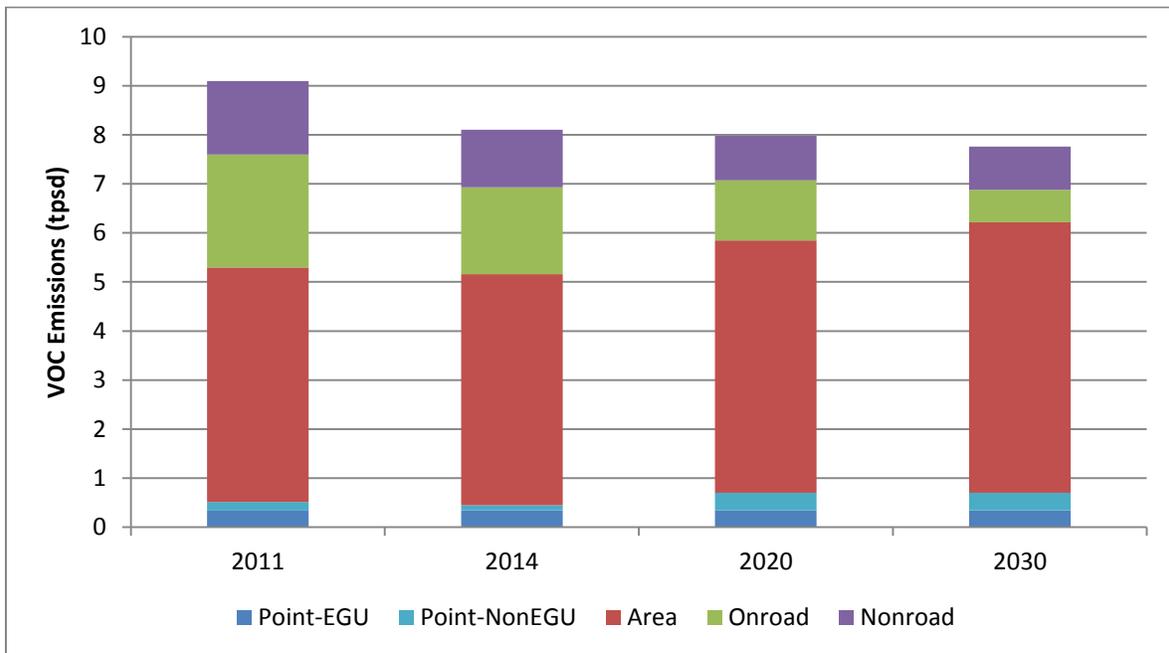


Figure 4.6. Eastern Kenosha County VOC emissions by source type for the Chicago 11-county nonattainment area.



As Tables 4.8 to 4.9 and Figures 4.1 to 4.6 show, the eastern Kenosha County nonattainment area NO_x emissions are a very small part of the total Chicago 11-county nonattainment area NO_x emissions (less than 4%) for the 2011 nonattainment year, 2014 attainment year, and 2020 and 2030 maintenance years. Between 2011 and 2014, NO_x emissions decreased from both eastern Kenosha County (8%) and the total Chicago 11-county nonattainment area (18%). NO_x emissions within eastern Kenosha County are projected to decline by 17% between 2014 and 2030, and those from the total Chicago 11-county nonattainment area are projected to decrease by 40% over the same time period. The largest NO_x reductions in the Chicago 11-county nonattainment area are projected from the onroad mobile sector, which accounts for 77% of all the sectors that had reductions. The nonroad mobile sector accounts for 20% of all the sectors that had reductions. These reductions are anticipated due to federal and state mobile source control programs.

As with NO_x, the eastern Kenosha County nonattainment area VOC emissions are also a very small part of the total Chicago 11-county nonattainment area VOC emissions (less than 2%) for the nonattainment, attainment and maintenance years (see Tables 4.8 to 4.9 and Figures 4.1 to 4.6). Between 2011 and 2014, VOC emissions have decreased for eastern Kenosha County (11%) and the total Chicago 11-county nonattainment area (13%). VOC emissions within eastern Kenosha County are projected to decline by 4% between 2014 and 2030 and by 20% in the total Chicago 11-county nonattainment area. As with NO_x emissions, the largest VOC reductions in the Chicago 11-county nonattainment area are anticipated from the onroad mobile sector (71% of all the sectors that had reductions) followed by the nonroad mobile sector (12% of all the sectors that had reductions).

The differences between the attainment year (2014) and the maintenance year (2030) NO_x and VOC emissions in Tables 4.8 and 4.9 illustrates that continued maintenance of the 2008 8-hour ozone NAAQS is expected in the eastern Kenosha County nonattainment area as well as the total Chicago 11-county nonattainment area.

5. TRANSPORTATION CONFORMITY BUDGETS

Transportation conformity is required under CAA section 176 (c) (42 U.S.C 7506(c)) to ensure that federally funded or approved highway and transit activities are consistent with (“conform to”) the purpose of the SIP. “Conform to” the purpose of the SIP means that transportation activities will not cause or contribute to new air quality violations, worsen existing violations, or delay timely attainment of the relevant NAAQS or any interim milestones. Transportation conformity applies to designated nonattainment and maintenance areas for transportation-related criteria pollutants: ozone, fine particles (PM_{2.5}), coarse particles (PM₁₀), carbon monoxide, and nitrogen dioxide. EPA’s transportation conformity rule (40 CFR Parts 51 and 93) establishes the criteria and procedures for determining whether metropolitan transportation plans, metropolitan transportation improvement programs, federally supported highways projects, and federally supported transit projects conform to the SIP.

Eastern Kenosha County (the Wisconsin portion of the Chicago 11-county nonattainment area) currently demonstrates transportation conformity using the “Motor Vehicle Emissions Budget (MVEB) Test” (40 CFR 93.119). WDNR submitted an early progress SIP with updated MVEBs for both the Kenosha and Sheboygan County nonattainment areas on January 16, 2015. On April 1, 2015, EPA found the MVEBs for Wisconsin’s 8-hour ozone nonattainment area were adequate for use in transportation conformity determinations (80 FR 17428). For the eastern Kenosha County nonattainment area, these MVEBs limit VOC emissions from onroad sources to 1.994 tons per hot summer day and NO_x emissions to 4.379 tons per hot summer day.

EPA requirements outlined in 40 CFR 93.118(e) (4) stipulate that MVEBs for NO_x and VOC are established as part of a control strategy implementation plan revision or maintenance plan. MVEBs are necessary to demonstrate conformance of transportation plans and improvement programs with the SIP.

5.1. Motor Vehicle Emissions Model

The EPA’s MOVES2014a model is used to derive estimates of hot summer day emissions for ozone precursors of NO_x and VOCs. Numerous variables can affect these emissions, especially the size of the vehicle fleet (the number of vehicles on the road), the fleet’s age, the distribution of vehicle types, and the VMT. The transportation information is derived from a travel demand model. Appendix 9 contains key data used to develop inputs to MOVES2014a.¹⁴

5.2. Motor Vehicle Emissions Budgets (MVEBs)

Table 5.1 contains the MVEBs for the eastern Kenosha County 2008 ozone NAAQS maintenance area for the years 2020 and 2030. Since assumptions change over time, it is necessary to have a margin of safety that will accommodate the impact of refined assumptions in the process. 40 CFR 93.101 defines safety margin as the amount by which the total projected emissions from all sources of a given pollutant are less than the total emissions that would satisfy the applicable requirement for reasonable further progress, attainment, or maintenance. WDNR

¹⁴ The complete set of inputs to MOVES2014a is too lengthy to include in this document. However, electronic copies of the inputs can be obtained from WDNR by email at christopher.bovey@wisconsin.gov or by phone at (608) 266-5542.

increased the on-road mobile source portions of the 2020 and 2030 projected emissions inventories by 7.5% to account for uncertainties in future mobile source emissions. Even with this increase, eastern Kenosha County will continue to demonstrate maintenance of the 2008 ozone standard.

For the eastern Kenosha County 2008 ozone maintenance area, transportation conformity will be based on the submitted MVEBs after EPA determines that the budgets meet the adequacy criteria of the transportation conformity rule. Once these budgets are found adequate by EPA, they will replace the MVEBs established for the 2008 ozone early progress plan (80 FR 17428). Table 5.1 identifies the 2020 and 2030 MVEBs for the Wisconsin 2008 ozone maintenance plan for use in transportation conformity analyses.

Table 5.1. Motor vehicle emissions budgets (MVEBs) for eastern Kenosha County for 2020 and 2030.

Location	Emissions (tons per hot summer day)	
	VOC	NO _x
<i>2020</i>		
Kenosha County (east of I-94)	1.23	2.28
<i>2030</i>		
Kenosha County (east of I-94)	0.66	1.21

6. PERMANENT AND ENFORCEABLE CONTROL MEASURES

The CAA Section 107(d)(3)(E)(iv) specifies that improvements in air quality must be due to permanent and enforceable emission reductions. This section documents permanent and enforceable control measures reducing emissions in eastern Kenosha County and contributing transport regions by the 2014 attainment year.

Many of the control measures listed have been implemented under long-standing programs (prior to 2011) which contribute to the emissions level realized in 2014. However, because a focus of this CAA requirement is to show that emission reductions occurred between 2011, the base nonattainment year, and 2014 the attainment year, this discussion highlights those control measures or a characterization of emission reductions that have occurred since 2011.

In this discussion, it is important to note that: (1) the total emissions from eastern Kenosha County are very small, and (2) the sources of these emissions are already very well-controlled in all respects. Because of this, even though pollution control programs continue to decrease emissions, the overall change is relatively small within eastern Kenosha County.¹⁵ The majority of change in emissions between 2011 and 2014 contributing to eastern Kenosha County attainment is due to emission reductions achieved in the larger upwind portion of the Chicago 11-county nonattainment area and transport regions. The permanent and enforceable control measures applicable for the Illinois and Indiana portions of the nonattainment area are documented in the redesignation requests submitted by those states. Other federal control programs reducing emissions in both the larger nonattainment area and transport regions are also discussed.

6.1. Point Source Control Measures

NO_x Control Measures

State NO_x RACT – Wisconsin has implemented RACT for major NO_x sources (sources with a Potential to Emit, PTE, of 100 tons or greater per year) in southeast (SE) Wisconsin as part of compliance requirements for the 1997 ozone NAAQS. The southeast Wisconsin area includes all of Kenosha County. The NO_x RACT requirements are codified under ss. NR 428.20 to 428.25, Wis. Adm. Code and became applicable May 1, 2009.

Eastern Kenosha County – Table 6.1 shows that approximately 98% of annual point source NO_x emissions in eastern Kenosha during 2014 originated from two coal-fired boilers operated by We Energies at the Pleasant Prairie electric utility plant.

These boilers have been subject to a consent decree (CD) since 2007 which limited NO_x emissions to 0.10 pounds per million Btu of heat input on a 30-day rolling basis. The Wisconsin

¹⁵ The two coal-fired boilers operating at the Pleasant Prairie electric utility generating plant are responsible for the majority of NO_x and VOC point source emissions in eastern Kenosha County. However, it is important to note that the Pleasant Prairie boilers have been well controlled since 2006 for both NO_x and VOC. Pleasant Prairie emissions and controls are documented in section 6.1. It is also important to note that in developing or comparing annual or ozone season emission inventories for 2011 and 2014, both coal-fired boilers were out of service for 21 days in May 2011 and 5 days in May 2014.

NOx RACT program, as noted below, implemented the same emission limitation in 2009. Under the CD, the Pleasant Prairie coal boilers became subject to a second more stringent NOx limit on January 1, 2015 of 0.08 pound per million Btu of heat input, on a 12-month rolling average. The CD control requirements are permanent and federally enforceable under the Title I permit 15-RSG-006.

Approximately 41 individual emission units are responsible for the remaining 1.9% of NOx emitted by point sources in the eastern Kenosha County nonattainment area. These emission units are at smaller facilities that do not have PTEs above major source thresholds or are individual emissions units that are relatively small in PTE or operate infrequently (e.g., batch heat treat furnaces, emergency generators, auxiliary boilers) and therefore are not subject to NOx RACT requirements. If the owners of these facilities modify or add sources such that total facility potential emissions increase above 100 tons per year, the facilities and emission units become subject to state NOx RACT requirements. In addition, any new emission units at these facilities would be subject to performance standards under s. NR 428.05, Wis. Adm. Code, as discussed in section 6.5.

On the whole, emission reductions due to control measures applied to point source NOx emissions in eastern Kenosha County occurred prior to 2011. Any change in emissions between 2011 and 2014 is due to a change in activity levels or due to normal fluctuations in operation.

Table 6.1. 2014 NOx emissions and requirements for point sources in the eastern Kenosha County nonattainment area.

FID	Facility	Unit	NOx (Annual Tons)	Percent of Total	Permanent and Enforceable Control Measures
230006260	We Energies - Pleasant Prairie Power Plant	Boiler B21 & B22	2,419	98.1%	2007 – 0.1 lbs/mmBtu 2015 – 0.08 lbs/mmBtu
Multiple	Balance of Emission Units	41 Units	48	1.9%	Emission units become subject to NOx RACT if facilities exceed 100 TPY PTE in the future.
Total			2,468	100.0%	

Federal NOx Transport Rules – Beginning January 1, 2009 EGUs in 22 states east of the Mississippi (including Wisconsin) became subject to ozone season NOx emission budgets under the Clean Air Interstate Rule (CAIR). The CAIR rule reduces transport of NOx emissions affecting attainment and maintenance of the 1997 ozone NAAQS as required under CAA s.

110(a)(2)(D).¹⁶ Therefore, the CAIR rule resulted in a significant reduction of NOx emissions in areas contributing to eastern Kenosha County by the 2014 attainment year.

Table 6.2 shows emission levels for EGUs affected by the CAIR rule through 2014 for states upwind of the eastern Kenosha County area. The states listed (in decreasing order of contribution) are those states contributing more than 1% of the 2008 standard (0.75 ppb) to the Chiwaukee Prairie monitor¹⁷. Between 2008 and 2014, total emissions across these states decreased by approximately 24 percent. Between 2011 (the nonattainment year) and 2014 (the attainment year), total emissions decreased by 18.5 percent. Emission reductions were even larger, ranging from 24 to 54.4 percent, for the three states contributing the most to eastern Kenosha County ozone concentrations: Illinois, Indiana, and Wisconsin.

Table 6.2. EGU NOx emitted under the CAIR program in states contributing > 0.75 ppb (1% of the 2008 NAAQS) in Kenosha County.

State	CSAPR Modeled Contribution to Kenosha County ¹ (ppb)	Ozone Season NOx Emissions (Tons)			Percent Reduction		
		2008	2011	2014	2008 - 2011	2011 - 2014	2008 - 2014
Illinois	31.090	31,106	26,894	18,489	13.5%	31.3%	40.6%
Indiana	12.888	53,016	48,926	40,247	7.7%	17.7%	24.1%
Wisconsin	3.990	19,951	13,818	9,087	30.7%	34.2%	54.5%
Ohio	2.354	52,603	43,346	32,181	17.6%	25.8%	38.8%
Kentucky	1.875	39,324	40,055	33,896	-1.9%	15.4%	13.8%
Missouri	1.349	34,820	26,912	31,235	22.7%	-16.1%	10.3%
W. Virginia	1.069	25,398	23,431	28,681	7.7%	-22.4%	-12.9%
Virginia	0.958	17,392	15,620	9,695	10.2%	37.9%	44.3%
Pennsylvania	0.878	53,800	65,109	44,243	-21.0%	32.0%	17.8%
Total		327,410	304,110	247,754	7.1%	18.5%	24.3%

¹ Ozone contributions as determined by EPA in proposing the CSAPR rule, 76 FR 48208, August 8, 2011.

Source: EPA Clean Air Markets Division, Database of reported emissions.

Starting in 2015, CSAPR replaced the CAIR rule for reducing interstate NOx transport. CSAPR implements a second more stringent emission budget in 2017. EPA has also proposed an update to CSAPR with ozone season NOx emission budgets to address NOx transport affecting attainment and maintenance of the more restrictive 2008 Ozone NAAQS (80 FR 75706). This proposal is pending finalization by EPA.

¹⁶ The first transport rule promulgated by EPA was the NOx SIP Call in 2003. The EGU requirements are subsumed by the CAIR rule. However, NOx emissions for some larger industrial sources in states contributing to Wisconsin continue to be regulated under the NOx SIP Call.

¹⁷ Contributions as determined by EPA in proposing the CSAPR rule, 76 FR 48208, August 8, 2011.

VOC Control Measures

VOC RACT / CTG – Wisconsin has implemented VOC RACT to fulfill control technology guideline (CTG) requirements for the southeast Wisconsin nonattainment area under the 1997 ozone NAAQS. This area included all of Kenosha County. These VOC RACT / CTG requirements are codified under chapters NR 419 through 424, Wis. Adm. Code. The list of the CTGs in place in Wisconsin are provided in Appendix 10. All of these CTG requirements were implemented and effective prior to the 2011 base year.

Eastern Kenosha County – Table 6.3. lists the point sources emitting VOCs in the eastern Kenosha County nonattainment area in 2014. This assessment shows that approximately 79 percent of 2014 VOC emissions come from combustion sources. These combustion sources include two utility boilers, which accounted for almost 77 percent of combustion-derived VOC emissions. The remaining combustion emissions originated from a number of industrial boilers, reciprocating engines, and various space and process heating units. As indicated in Table 6.2, the majority of these combustion-related emissions are subject to various National Emission Standards for Hazardous Air Pollutant (NESHAP) rules that have become effective since 2011. These NESHAP rules implement good combustion practices that minimize VOC emissions or apply direct emission limitations on total hydrocarbons (including VOCs). The specifics of each NESHAP rule is further described below in the section “Federal / Regional VOC Control Measures”. It should be noted however that, although the good combustion NESHAP requirements are expected to minimize VOC emissions, the emission reductions due to these rules are expected to be relatively small and hard to quantify.

Table 6.3 shows that approximately 21 percent of VOC point source emissions in 2014 came from non-combustion activities or processes. The non-combustion VOC sources are subject to RACT / CTG rules as applicable. These rules aid in controlling VOC emissions, but these rules were implemented prior to 2011 with no additional incremental reduction expected between 2011 and 2014.

Table 6.3. 2014 VOC emissions and requirements for point sources in the eastern Kenosha County nonattainment area.

FID	Facility	Unit	Annual VOC (Tons)	Percent of Total	Permanent and Enforceable Control Measures
Combustion Sources					
230006260	We-Energies Pleasant Prairie Power Plant	B20 & B21	125.7	76.7%	MATS Combustion Requirements
Multiple	Natural gas-fired boilers	17 units	1.81	1.1%	ICI Boiler and process heater NESHAP combustion requirements ¹
Multiple	Fuel oil-fired boilers	4 units	0.0001	0.1%	ICI Boiler and process heater NESHAP combustion requirements ¹
Multiple	Reciprocating Engines	9 units	0.04	0.9%	RICE NESHAP requirements ¹
Multiple	Process Heaters	13 units	2.21	1.3%	ICI Boiler and process heater NESHAP combustion requirements ¹
		Subtotal	129.7	79.2%	
Non-Combustion Sources					
Multiple	Non-Combustion Sources	25 units	34.1	20.8%	Individual emission units subject to VOC RACT / CTGs as applicable
Total =			163.8	100%	

¹The emissions units are subject to either major source or area source NESHAP emission requirements based on size thresholds. The applicability of requirements and exemptions for each unit has not been determined for purposes of this assessment. Natural gas-fired boilers and processes at area sources are not subject to requirements.

Federal VOC Control Measures for Point Sources

A number of federal NESHAP rules were implemented to control hazardous pollutants. These rules include requirements to control hazardous organic pollutants through ensuring complete combustion of fuels or implementing requirements for emissions of total hydrocarbons. Under either approach, the rules act to reduce total VOC emitted by the affected sources. These NESHAP rules apply to both major and area source facilities. Major sources are those facilities emitting more than 10 tons per year of a single hazardous air pollutant or more than 25 tons per year of all hazardous air pollutants in total. Area sources are those facilities that emit less than the major source thresholds for hazardous air pollutants.

These NESHAP measures apply to sources within the eastern Kenosha County nonattainment area but also apply nationally, thereby reducing the transport of VOC emissions into the nonattainment area. The NESHAP rules that have likely contributed to attainment by 2014 include the following:

- *Mercury and Air Toxics (MATS) NESHAP* – On February 16, 2012 EPA promulgated the MATS rule under part 63 subpart UUUUU. Emission requirements were fully applicable by April 16, 2015. Affected sources were required to conduct energy assessments and combustion tuning to ensuring complete combustion.
- *Major Source ICI Boiler and Process Heater NESHAP* – On March 21, 2011, EPA promulgated the “National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters” under part 63 subpart DDDDD. This NESHAP requires all boilers and process heaters, including natural gas fired units, at major source facilities to perform an initial energy assessment and perform periodic tune-ups by January 31, 2016. This action is intended to ensure complete combustion.
- *Area Source (non-major point sources) ICI Boiler and Process Heater NESHAP* – On March 21, 2011 EPA promulgated the “National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers” under part 63 subpart JJJJJ. This NESHAP requires solid fuel and oil fuel fired boilers operated by sources that are below the major source threshold to begin periodic combustion tuning by March 21, 2014.
- *Internal Combustion Engine Rules* – EPA has promulgated three rules which limit the total amount of hydrocarbon emissions from internal combustion engines - the “National Emission Standards for Hazardous Pollutants for Reciprocating Internal Combustion Engines” (RICE MACT) was promulgated on June 15, 2004 under Part 63, subpart ZZZZ and revised in January 2008 and March 2010, with the two revisions impacting additional RICE units; the “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines” promulgated on January 18, 2008 under Part 60, subpart JJJJ; and “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines promulgated on July 11, 2006 under Part 60, subpart IIII. These rules implement hydrocarbon emission limitations prior to and after 2011 based on compliance dates. These rules also act to continuously reduce emissions as existing stationary engines are replaced by new, cleaner-burning engines.

6.2. Area Source Control Measures

As noted for point sources, Wisconsin has implemented all of the necessary VOC RACT / CTG rules under chs. NR 419 through 424, Wis. Adm. Code. A number of these rules limit VOC emissions from area sources as noted in Appendix 10. Wisconsin previously had a Stage 2 vehicle refueling vapor recovery program in place. However, this program was removed from Wisconsin’s ozone SIP on November 4, 2013 (78 FR 65875) with EPA approval because the equipment was found to defeat onboard vapor recovery systems for some new vehicles. As stage 2 equipment is removed, actual VOC emissions are anticipated to decrease slightly. This SIP revision was based on a technical showing of net benefit as required under the CAA in order to prevent SIP backsliding.

There are also a number of federal programs in place which reduce area source VOC emissions. VOC emission standards for consumer and commercial products were promulgated under 40

CFR Part 59. This program was implemented prior to 2011 and will continue to maintain reduced VOCs emitted from this source category. Actual emission levels going into the future will vary depending on population and activity use factors. Another federal rule, the area source hazardous air pollutant control rule also controls area VOC emissions associated with fuel storage and transfer activities (40 CFR 63, Subpart R, BBBB, and CCCCC).

6.3. Onroad Source Control Measures

Both NOx and VOC emissions from on-road mobile sources are substantially controlled through federal new vehicle emission standards programs and fuel standards. Although initial compliance dates in many cases were prior to 2011, these regulations have continued to reduce area-wide emissions as fleets turn over to newer vehicles. All of these programs apply nationally and have reduced emissions both within the nonattainment area and contributing ozone precursor transport areas. The federal programs contributing to attainment of the 2008 ozone NAAQS include those listed in Table 6.4.

Table 6.4. Federal onroad mobile source regulations contributing to attainment.

On-road Control Program	Pollutants	Model Year ¹	Regulation
Passenger vehicles, SUVs, and light duty trucks – emissions and fuel standards	VOC & NOx	2004 – 2009+ (Tier 2) 2017+ (Tier 3)	40 CFR Part 85 & 86
Light-duty trucks and medium duty passenger vehicle – evaporative standards	VOC	2004 - 2010	40 CFR Part 86
Heavy-duty highway compression engines	VOC & NOx	2007+	40 CFR Part 86
Heavy-duty spark ignition engines	VOC & NOx	2005 – 2008+	40 CFR Part 86
Motorcycles	VOC & NOx	2006 – 2010 (Tier 1 & 2)	40 CFR Part 86
Mobile Source Air Toxics – fuel formulation, passenger vehicle emissions, and portable container emissions	Organic Toxics & VOC	2009 - 2015 ²	40 CFR Part 59, 80, 85, & 86
Light duty vehicle corporate average fuel economy (CAFE) standards	Fuel efficiency (VOC and NOx)	2012-2016 & 2017-2025	40 CFR Part 600

¹The range in model years affected can reflect phasing of requirements based on engine size or initial years for replacing earlier tier requirements.

²The range in model years reflects phased implementation of fuel, passenger vehicle, and portable container emission requirements as well as the phasing by vehicle size and type.

Two additional ongoing CAA-required programs limit onroad VOC and NOx emissions in Kenosha County. The first program, administered by EPA, has required the use of reformulated gasoline (RFG) in southeast Wisconsin and the Chicago 11-county nonattainment area since

1995. The RFG program has gone through three phases since its initiation. The Wisconsin-administered I/M program is the other requirement. The Wisconsin I/M program was first implemented in 1984 and has gone through several modifications and enhancements since that time. The I/M program requirements are codified in ch. NR 485, Wis. Adm. Code. Both of the RFG and I/M programs reduce average vehicle VOC and NO_x emissions and garner some level of continued incremental reduction as fleets turn over to new vehicles.

6.4. Nonroad Source Control Measures

Similar to onroad sources, VOC and NO_x emitted by nonroad mobile sources are significantly controlled via federal standards for new engines. These programs therefore reduce ozone precursor emissions generated both within Kenosha County and in the broader regional areas contributing to ozone transport. Table 6.5 lists the nonroad source categories and applicable federal regulations. The nonroad regulations continue to slowly lower average unit and sector total emissions through and beyond the 2014 attainment inventory year as equipment fleets are replaced each year (approximately 20 year cycles for complete fleet turnover) pulling the dirtiest equipment out of circulation. The new engine tier requirements are implemented in conjunction with fuel programs regulating fuel sulfur content. The fuel programs enable achievement of various new engine tier VOC and NO_x emission limits.

The RFG program noted in the onroad control measures also contributes to lower NO_x and VOC emissions from the nonroad mobile sector.

Table 6.5. Federal nonroad mobile source regulations contributing to attainment.

Nonroad Control Program	Pollutants	Model Year¹	Regulation
Aircraft	HC & NO _x	2000 – 2005+	40 CFR Part 87
Compression Ignition ²	NMHC & NO _x	2000 – 2015+ (Tier 4)	40 CFR Part 89 & 1039
Large Spark Ignition	HC & NO _x	2007+	40 CFR Part 1048
Locomotive Engines	HC & NO _x	2012 – 2014 (Tier 3) 2015+ (Tier 4)	40 CFR Part 1033
Marine Compression Ignition	HC & NO _x	2012 – 2018	40 CFR Part 1042
Marine Spark Ignition	HC & NO _x	2010+	40 CFR Part 1045
Recreational Vehicle ³	HC & NO _x	2006 – 2012 (Tier 1 – 3) (phasing dependent on vehicle type)	40 CFR Part 1051
Small Spark Ignition Engine < 19 ⁴ Kw – emission standards	HC & NO _x	2005 – 2012 (Tier 2 & 3) (phasing based on both Tier and engine size)	40 CFR Part 90 & 1054
Small Spark Ignition Engine < 19 Kw – evaporative standards	HC & NO _x	2008 – 2016 (phasing based on both engine size and category)	40 CFR Part 1045, 54, & 60

HC – Hydrocarbon (VOCs)

NMHC – Non-Methane Hydrocarbon (VOCs)

¹The range in model years affected can reflect phasing of requirements based on engine size or initial years for replacing earlier tier requirements.

²Compression ignition applies to diesel non-road compression engines including engines operated in construction, agricultural, and mining equipment.

³Recreational vehicles include snowmobiles, off-road motorcycles, and ATVs

⁴Small spark ignition engines include engines operated in lawn and hand-held equipment.

6.5. New Source Requirements

Federal New Source Review (NSR) Program

Wisconsin has a fully approved NSR program. For areas designated or redesignated attainment, the NSR program implements PSD requirements as codified under ch. NR 405, Wis. Adm. Code. The PSD program is approved by EPA with an additional pending approval of a February 11, 2016 submission as discussed in section 2.1.

Under the PSD program, any new major source or an existing major source undergoing a major modification will be required to apply Best Available Control Technology (BACT). A major modification is defined as a major source increasing net emissions or potential-to-emit of an air contaminant above the applicable thresholds of 40 tons NO_x per year and 40 tons VOC per year.

State New Source Requirements

Wisconsin has implemented NO_x performance standards, codified under s. NR 428.04, Wis. Adm. Code, to ensure that new units emitting below applicable thresholds of the NSR program are installed with good standard NO_x control equipment. The s. NR 428.04 emission performance standards also apply to existing emission units undergoing a major modification and thus establish minimum emission standards for modified sources.¹⁸

6.6. Section 110(l) Noninterference Requirements

When revising rules and regulations in the SIP, the state is responsible for demonstrating that such a change will not interfere with attainment of the NAAQS, Rate of Progress (ROP), or other applicable CAA requirements for any of the criteria pollutants. This request for redesignation does not implement any changes in the control programs or requirements approved in the SIP and in place during the 2014 attainment year. Therefore, all requirements related to section 110(l) noninterference are fulfilled under this request. Further, Wisconsin will continue to implement all control programs currently in the SIP for emissions of ozone precursors from eastern Kenosha County, Wisconsin. As documented in Wisconsin's I-SIP for the 2008 ozone NAAQS (Appendix 1), the WDNR has the legal authority and necessary resources to actively enforce any violations of its rules or permit provisions. Removal of any control program from the SIP will be subject to a public hearing process, a demonstration of noninterference, and approval by EPA.

6.7. Impact of Permanent and Enforceable Measures on Monitored Ozone Concentrations

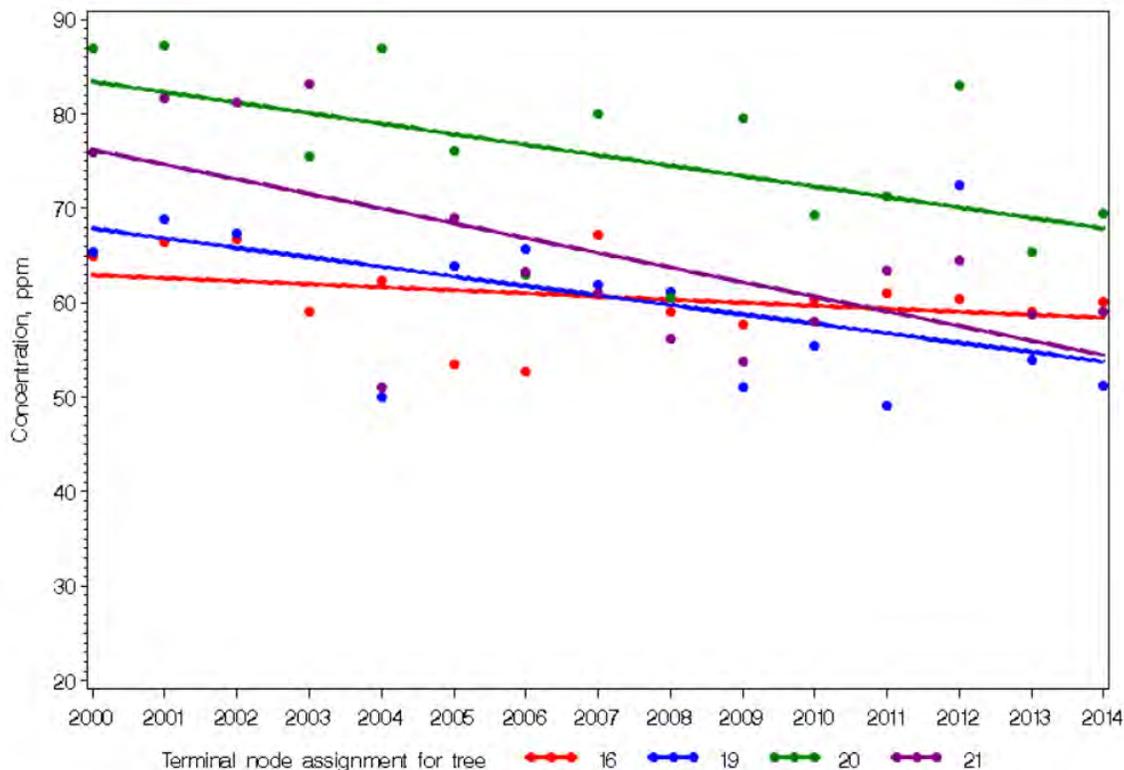
Trend analysis supports that the permanent and enforceable control measures described in this section have contributed to the reductions in monitored ozone concentrations discussed in Section 3. One demonstration of the strength of the improvement trends is shown in a Classification and Regression Tree (CART) analysis for the key indicator sites. CART analysis allows comparison of ozone concentrations on days with similar meteorological conditions. This analysis partially controls for the influence of year-to-year meteorological variability on ozone concentrations. CART analysis produces average ozone concentrations for a number of different classes of days (determined by meteorology) for each year under review. This analysis therefore allows examination of ozone concentration trends resulting from non-meteorological factors, including the permanent and enforceable reductions in emissions of ozone precursors impacting the sites.

A CART analysis conducted by LADCO visualized changes in ozone concentrations under different meteorological conditions over the last 15 years. Figure 6.1 shows average ozone concentrations from 2000 through 2014 for the four sets of meteorological conditions ("nodes") with the highest ozone concentrations for two monitors in the northern part of the Chicago 11-county nonattainment area. The data shown for each node are the average ozone concentrations

¹⁸ Wisconsin Statute 285.27(3m) provides an alternative emission limitation for modified combustion turbines based on feasibility and technical constraints in meeting the emission limit under s. NR NR 428.04 (2) (g) 1. a. and 2. a., Wis. Adm. Code. This provision for an alternative emission limitation under 285.27(3), Wis. Stats., was approved to the state implementation plan on December 9, 2014 (79 FR 72976).

on all days with a particular set of meteorological conditions.¹⁹ (Note that this time period extends beyond that associated with the 2008 standard.) Average ozone concentrations have decreased under all of these meteorological conditions over this time period. The greatest decrease came from the nodes with the highest concentrations in the early 2000's (nodes 20 and 21). This analysis suggests that the observed long-term decreases in ozone concentrations are due to reductions in ozone precursors discussed earlier in this section rather than solely due to meteorological factors. This analysis is presented in more detail in Appendix 11, which presents the meteorological conditions represented by each node along with a CART analysis of monitors from Cook County, IL.

Figure 6.1. Concentration trends from the CART analysis for Lake County, IL, and Kenosha County, WI monitors. Data points show the average ozone concentration for days sharing certain meteorological conditions (“nodes). Only meteorological nodes with an average ozone concentration above 55 ppb are shown.



¹⁹ For example, Node 20 in Figure 6.1 shows the average ozone concentrations for days characterized by maximum temperatures and average morning temperatures above 77.56 °F, average afternoon winds of greater than 2.41 m/s from the south and less than 1.88 m/s from the east.

7. MAINTENANCE PLAN FOR EASTERN KENOSHA COUNTY

Section 175A of the CAA sets forth the elements of a maintenance plan for areas seeking redesignation from nonattainment to attainment. The plan must demonstrate continued attainment of the applicable NAAQS for at least 10 years after the U.S. EPA approves a redesignation to attainment. Eight years after the redesignation, the state must submit a revised maintenance plan, which demonstrates attainment for the 10 years following the initial 10-year period.

Based on certified data, all monitors in the Chicago 11-county nonattainment area exhibited attainment air quality based on the 2013-2015 design values (Section 3). Comparison of nonattainment (2011) and attainment (2014) year inventories showed that attainment of the NAAQS was accompanied by significant reductions in ozone precursor emissions from the nonattainment area (Section 4). These emissions reductions were due to permanent and enforceable measures, many of which will further reduce emissions during the maintenance period (Section 6). In this section, maintenance of the attainment status in the Chicago 11-county nonattainment area is demonstrated in two ways: (1) via reported and projected summer day emissions provided on a sector-specific basis that show continued reductions in emissions during maintenance years, and (2) via regional photochemical modeling outcomes for 2017 that show continued reductions in ozone concentrations. This section also includes contingency measures and commitments to continue monitoring and to revise this maintenance plan.

7.1. Demonstration of Maintenance via Comparison of Attainment and Maintenance Emissions Inventories

The formal maintenance emission inventory projections are described in Section 4 and summarized in Tables 7.1 and 7.2 below. The three states in the Chicago 11-county nonattainment area have agreed to use 2014 as the representative attainment year inventory because of the availability of NEI data for this year.²⁰ 2020 and 2030 were chosen as interim and final maintenance years because their status as transportation planning years ensures the availability of robust transportation projections for these years.

The forecast maintenance inventories for 2020 and 2030 demonstrate that emissions of NO_x and VOCs are projected to decrease in future years relative to the 2014 attainment year for the Chicago 11-county nonattainment area (Tables 7.1 and 7.2). Total emissions affecting ozone concentrations from the nonattainment area are projected to decrease 40% for NO_x and 20% for VOC, from 2014 to 2030. NO_x and VOC emissions from eastern Kenosha County are projected to decrease 17% and 3.5% during this time period; these emissions make up only 1.6% to 3.8% of total emissions from the three-state Chicago 11-county nonattainment area. Since the area attained the standard in 2013-2015 and emissions are projected to decrease through 2030, this inventory analysis demonstrates that the Chicago 11-county nonattainment area is expected to maintain the 2008 NAAQS for more than ten years into the future.

²⁰ EPA guidance for redesignation inventories provides the flexibility to use any one of the three years contained in the attainment design value provided emissions from the season selected are found representative in terms of economic conditions, key sector emissions characteristics and weather/ozone conduciveness conditions. 2014 is the middle year in the attainment design value (2013-2015) and also meets the other conditions. This year therefore forms a reasonable basis for assessing the “real and permanent” nature of attainment as required by the Act.

Table 7.1. NO_x emissions in the Chicago-Naperville, IL-IN-WI, ozone nonattainment area.

	Total NO _x emissions (tons per summer day)			
	2014 attainment year	2020 interim year	2030 maintenance year	Net Change (2014-2030)
Eastern Kenosha County				
Point	10.85	11.00	11.00	0.2 (1%)
Area	1.08	1.18	1.30	0.2 (20%)
Onroad	3.87	2.28	1.21	-2.7 (-69%)
Nonroad	1.72	1.27	1.04	-0.7 (-39%)
Total	17.52	15.73	14.55	-3.0 (-17%)
Kenosha % of Total Area	2.7%	3.4%	3.8%	
Total Nonattainment Area				
Point	168.8	166.3	175.0	6.2 (4%)
Area	42.3	42.1	40.8	-1.5 (-4%)
Onroad	274.3	133.6	65.2	-209.1 (-76%)
Nonroad	157.0	122.0	102.3	-54.8 (-35%)
Total	642.4	464.0	383.3	-259.1 (-40%)

Table 7.2. VOC emissions in the Chicago-Naperville, IL-IN-WI, ozone nonattainment area.

	Total VOC emissions (tons per summer day)			
	2014 attainment year	2020 interim year	2030 maintenance year	Net Change (2014-2030)
Eastern Kenosha County				
Point	0.66	0.92	0.92	0.3 (39%)
Area	4.71	5.14	5.51	0.8 (17%)
Onroad	1.77	1.23	0.66	-1.1 (-63%)
Nonroad	1.18	0.91	0.88	-0.3 (-25%)
Total	8.32	8.20	7.97	-0.4 (-4%)
Kenosha % of Total Area	1.6%	1.9%	1.9%	
Total Nonattainment Area				
Point	66.5	63.3	62.0	-4.5 (-7%)
Area	234.5	224.3	223.1	-11.4 (-5%)
Onroad	107.5	61.2	36.0	-71.5 (-67%)
Nonroad	102.2	87.6	89.9	-12.2 (-12%)
Total	510.7	436.5	411.1	-99.6 (-20%)

7.2. Modeled Projections of Maintenance

WDNR utilized forecasts of attainment air quality based on two related modeling efforts conducted by EPA and LADCO for monitors in the Chicago 11-county nonattainment area as part of a demonstration of maintenance of the 2008 ozone NAAQS. The model assessments would require additional elements and refinement before being considered adequate to fulfill requirements for a modeled attainment demonstration as part of an Attainment Demonstration Ozone SIP submittal. However, the modeling provides a strong “weight-of-evidence” showing that supports the inventory-based maintenance demonstration.

Modeling Approaches

EPA conducted modeling that projects ozone concentrations in 2017 in support of its regional air quality assessment for the eastern U.S. and subsequent rulemaking addressing interstate ozone transport under CAA Section 110(a)(2)(D) for the 2008 ozone NAAQS (80 FR 46271).²¹ This regional photochemical modeling was performed for a national U.S. domain that included the Chicago 11-county nonattainment area using the Comprehensive Air Quality Model with Extensions (CAMx) and a meteorological base season of 2011. The projections considered the anticipated impact on emissions from rules and other legal obligations that will come into effect through 2017, along with projected changes in activity for different sectors based on the most recent macro-economic forecasts. EPA modeling used a 2011 baseline inventory that builds from EPA’s 2011 NEI with updated sector-specific modeling for the on-road and power sectors.

LADCO modeling projected ozone concentrations for 2017 using an approach based on the modeling by EPA. The photochemical modeling platform and the meteorological inputs were nearly identical for the two efforts. LADCO modeling also relied upon EPA’s 2011 emissions baseline forecasted through 2017. The primary differences between the two modeling efforts were the use of an alternative EGU model (the ERTAC EGU Growth Model) for growth assumptions for the power sector, improvements to the onroad inventory using LADCO state-specific MOVES model inputs, and the use of a more refined assessment of certain non-road mobile sector emissions in the LADCO modeling. LADCO also assumed limited changes to the projected and temporalized 2017 inventories developed by EPA and used for the regional modeling.

Appendix 12 more fully describes the emissions inventory projection assumptions and meteorology and photochemical transport model inputs.

²¹ In comments to EPA submitted on February 1, 2016, Wisconsin described numerous technical issues with EPA’s modeling, used to support EPA’s proposed CSAPR Update for the 2008 Ozone National Ambient Air Quality Standards. However, at this time, this modeling remains EPA’s official projections of future concentrations in the Chicago area.

Regional Photochemical Modeling Results

Table 7.3 shows the results of EPA's and LADCO's modeling efforts for the monitors in the Chicago 11-county nonattainment area, along with base 2009-2013 average design values.²² Both sets of modeling project ambient ozone concentrations in the Chicago 11-county nonattainment area will continue to decline through 2017. EPA projects an average decrease in ozone concentrations of 0.0089 ppm (8.9 ppb) between the 2011 baseline model concentrations (based on 2009-2013 4th high concentrations) and 2017 model-projected concentrations. LADCO projects an even larger average reduction of 0.0107 ppm (10.7 ppb)

Both modeling efforts project 2017 ozone concentrations at all monitors in the Chicago 11-county nonattainment area to be well below the 2008 ozone NAAQS level of 0.075 ppm assuming 2011 meteorological patterns (Table 7.3). All sites are projected to be at least 10% below the level of the NAAQS. The highest site concentration modeled by EPA for 2017 is 0.0675 ppm, and the highest projected by LADCO is 0.0663 ppm. This modeling indicates a strong likelihood of continued maintenance in the nonattainment area through 2017. Because emissions are projected to continue to decrease throughout the maintenance period (see Tables 7.1 & 7.2), this modeling analysis further suggests that the area will continue to maintain the 2008 NAAQS throughout the maintenance period. While this modeling is not the SIP-grade modeling required for a modeled attainment demonstration, these results provide weight-of-evidence support for Wisconsin's request that EPA redesignate the Wisconsin portion of the nonattainment area to attainment.

7.3. Verification of Continued Attainment

WDNR will verify continued attainment of the 2008 8-hour ozone NAAQS in eastern Kenosha County during the maintenance period via continued ozone monitoring. As stated in Section 3.5, WDNR, along with IEPA and IDEM, commits to continuing to monitor ozone levels in the Chicago 11-county nonattainment area. The state also commits to continuing to quality assure the data and to entering it into the AQS system to make it publicly available.

In addition, ozone precursor inventories will be prepared for 2017, 2020, 2029, and 2032 as part of the CAA-required NEI program. These inventories will be compared with the 2014 attainment year inventory and projected 2020 interim and 2030 maintenance year inventories to assess emissions trends, as necessary, to assure continued attainment of the 2008 ozone NAAQS.

²² The average 2009-2013 design value is the average of three 3-year design values, including 2009-2011, 2010-2012, and 2011-2013. 2017 projections were made using the relative response metric described in Appendix 11.

Table 7.3. Comparison of base (2009-2013) monitored design values (in ppm) with projected modeled design values for 2017 based on EPA and LADCO modeling.* The highest projected concentration from each modeling effort is shown in bold.

Monitor ID	State	County	Monitored 2009-2013 Average Design Value	2017 Projected Average Design Value	
				EPA modeling	LADCO modeling
170310001	Illinois	Cook	0.0720	0.0675	0.0615
170310032	Illinois	Cook	0.0777	0.0637	0.0652
170310076	Illinois	Cook	0.0717	0.0670	0.0612
170311003	Illinois	Cook	0.0697	0.0559	0.0526
170311601	Illinois	Cook	0.0713	0.0664	0.0663
170314002	Illinois	Cook	0.0717	0.0579	0.0576
170314007	Illinois	Cook	0.0657	0.0541	0.0512
170314201	Illinois	Cook	0.0757	0.0623	0.0571
170317002	Illinois	Cook	0.0760	0.0612	0.0605
170436001	Illinois	DuPage	0.0663	0.0618	0.0618
170890005	Illinois	Kane	0.0697	0.0665	0.0653
170971007	Illinois	Lake	0.0793	0.0650	0.0624
171110001	Illinois	McHenry	0.0697	0.0652	0.0647
171971011	Illinois	Will	0.0640	0.0589	0.0593
180890022	Indiana	Lake	0.0667	0.0602	0.0584
180890030	Indiana	Lake	0.0697	0.0613	0.0595
181270024	Indiana	Porter	0.0703	0.0625	0.0614
181270026	Indiana	Porter	0.0630	0.0584	0.0570
550590019	Wisconsin	Kenosha	0.0810	0.0667	0.0637
Average for all monitors			0.0711	0.0622	0.0604
Average change (2009-13 to 2017)				-0.0089	-0.0107

* Results are only shown for monitors that operated continuously from 2009 to 2015 with no incomplete years of data. 2009-2013 average design values are averages of three 3-year design values for 2009-2011, 2010-2012, and 2011-2013. The highest modeled concentration for each model is shown in bold font.

7.4. Maintenance Contingent Response Plan

EPA's Redesignation Guidance states that a state's "maintenance plan shall contain such contingency measures as the Administrator deems necessary to ensure prompt correction of any violation of the NAAQS". As part of Wisconsin's maintenance plan for Wisconsin's portion of the Chicago 11-county nonattainment area, Wisconsin commits to two separate levels of contingent response to any renewed exceedance and/or violation of the 2008 ozone NAAQS. The first step, a "warning level response", initiates a study to investigate whether the observed exceedance requires further evaluation or action to ensure maintenance going forward. The second step, an "action level response", would identify and implement any needed control

measures necessary to ensure maintenance. Wisconsin commits to work with Illinois and Indiana in evaluating and identifying specific measures to be implemented in the event that the 2008 ozone NAAQS is not maintained.

Wisconsin has an extremely limited ability to affect ozone concentrations in the Chicago 11-county nonattainment area due to the influence of emissions originating in upwind states. As shown in Tables 7.1 and 7.2, the Wisconsin portion of the nonattainment area contributes less than 4% of total NO_x and 2% of total VOC emissions from the entire area. In addition, high ozone events at the controlling monitors of Chiswaukee Prairie, WI and Zion, IL occur almost exclusively when these sites are downwind of the core Chicago 11-county nonattainment areas of Illinois and Indiana. As a consequence, additional controls on NO_x and VOC emissions from Wisconsin are likely to have very little impact on ozone concentrations in the Chicago 11-county nonattainment area. When identifying additional controls for implementation, the state will have to consider the potential of those controls to reduce ozone concentrations at violating monitors in the nonattainment area.

Specifics of Wisconsin's contingency response are as follows.

Warning Level Response

A warning level response would be triggered if an annual (1-year) 4th high monitored concentration is above the level of the 2008 ozone NAAQS (0.075 ppm). A warning level response would initiate a study to determine whether the high ozone concentrations indicate a trend towards higher ozone levels and whether emissions are significantly higher than projected in the maintenance plan. The study would include the following elements:

- An assessment of whether actual emissions have deviated significantly from the emissions projections contained in this maintenance plan for the nonattainment area, along with an evaluation of which sectors and states are responsible for any emissions increases.
- A study of whether unusual meteorological conditions during the high-ozone year led to the high monitored ozone concentrations.

Should it be determined through the warning level study that action is necessary to ensure maintenance, Wisconsin will follow the procedures for control selection and implementation outlined under the action level response below. Study findings will be completed no later than the beginning of the following summer ozone control period (May 1).

Action Level Response

An action level response would be triggered if a three-year design value exceeds the level of the 2008 ozone NAAQS (0.075 ppm). This response would follow a cooperative study conducted with Illinois and Indiana to determine whether additional control measures are needed to assure attainment and maintenance of the 2008 ozone NAAQS within the maintenance area. This analysis will examine the following factors for the entire maintenance area:

- The level, distribution, and severity of ambient ozone concentrations;

- The weather patterns contributing to ozone levels;
- Potential contributing emissions sources;
- The geographic applicability of possible contingency measures;
- Emission trends, including the impact of existing or forthcoming control measures that have not yet been implemented;
- Current and recently identified control technologies; and
- Air quality contributions from outside the maintenance area.

The selection of emission reduction measures to be implemented will be based upon their potential to reduce ozone concentrations at violating monitors in the nonattainment area, cost-effectiveness, emission reduction potential, economic and social considerations, ease and timing of implementation, and other appropriate factors. When considering these criteria, priority will be given to measures that can be in place within 18 months.

Potential additional control measures are listed below. However, since it is not possible to determine what control measures, if any, will be appropriate at an unspecified time in the future, this list is neither comprehensive nor in priority order.

- Implementation of any state or federally promulgated rule regulating transport of ozone precursors.
- Updated federal NO_x emission limits for heavy-duty vehicles.
- Updated (Phase 2) federal fuel efficiency standards for medium- and heavy-duty engines and vehicles.
- New federal regulations on the sale of aftermarket catalysts for vehicle catalytic converters.

Adoption of any additional control measures is subject to the necessary Wisconsin administrative, legal, and legislative processes. WDNR will solicit input from interested and affected parties in the area prior to selecting appropriate control measures. This process will include publication of notices, an opportunity for a public hearing, and other measures required by Wisconsin law.

7.5. Commitment to Revise Maintenance Plan

Wisconsin hereby commits to review its maintenance plan eight (8) years after redesignation, as required by Section 175(A) of the CAA. This revised SIP will provide for maintenance for an additional 10 years.

8. SOURCE EMISSION STATEMENT

Marginal areas are required to submit an emissions statement under Section 182(a)(3)(B) of the CAA (78 FR 34202). The emission statement must:

... require that the owner or operator of each stationary source of oxides of nitrogen or volatile organic compounds provide the state with a statement, in such form as the Administrator may prescribe (or an equivalent alternative developed by the state), for classes or categories of sources, showing the actual emissions of oxides of nitrogen and volatile organic compounds from that source. The first such statement shall be submitted within 3 years after the date of the enactment of the CAA Amendments of 1990. Subsequent statements shall be submitted at least every year thereafter. The statement shall contain a certification that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement (78 FR 34202).

EPA has proposed that this SIP submittal of the emissions statement program be due two years after the effective date of designations (78 FR 34203).

In July 1992, EPA published a guidance memorandum on source emission statements titled, 'Guidance on the Implementation of an Emission Statement Program.' Further guidance was provided to clarify the source emission statement requirements were applicable to all areas designated nonattainment for the 1997 ozone NAAQS and classified as marginal or higher under subpart 2, part D, title I of the CAAA. The Implementation Rule for the 2008 ozone NAAQS similarly applies the memorandum "Emission Statement Requirements Under 8-hour Ozone NAAQS Implementation," dated March 14, 2006, to all areas designated nonattainment for the 2008 ozone NAAQS and classified as marginal or higher under subpart 2 (80 FR 12264).

Kenosha County has an emissions statement program in place due to historic nonattainment designations for an earlier ozone NAAQS. The 2008 Ozone Implementation Rule indicates that:

... if an area has a previously approved emission statement rule in force for the 1997 ozone NAAQS or the 1-hour ozone NAAQS that covers all portions of the nonattainment area for the 2008 ozone NAAQS, such rule should be sufficient for purposes of the emissions statement requirement for the 2008 ozone NAAQS. The state should review the existing rule to ensure it is adequate and, if it is, may rely on it to meet the emission statement requirement for the 2008 ozone NAAQS (80 FR 12264, 12291).

WDNR has the authority under Chapter NR 438 of the Wisconsin Administrative Code to require annual NO_x and VOC emission reporting from any facility in the state that emits a pollutant above the thresholds specified in the code. This includes facilities in nonattainment areas such as eastern Kenosha County. Chapter NR 438 is available at http://docs.legis.wisconsin.gov/code/admin_code/nr/400/438.pdf

EPA approved Wisconsin's emission reporting program as satisfying the CAA emission statement requirement on December 6, 1993 (58 FR 64155). This Federal Register notice is included as Appendix 13.

9. PUBLIC PARTICIPATION

In accordance with section 110(a)(2) of the CAA, the WDNR will publish a notice on the WDNR website (<http://dnr.wi.gov/topic/AirQuality/Input.html>) stating that it will hold a public hearing on this 2008 ozone NAAQS redesignation request for eastern Kenosha County. The WDNR will also post the notice of availability of this request on the WDNR website. This public hearing will take place on Tuesday, June 28, 2016 at 9:00 am at the Southwest Neighborhood Library in Kenosha (7979 38th Ave, Kenosha, WI 53142) in Activities Room A. There will be at least a 30-day public comment period on this redesignation request. The WDNR will review and respond to all received public comments and include those responses as part of the final submittal to EPA.

10. CONCLUSIONS

Eastern Kenosha County, Wisconsin, along with the rest of the Chicago 11-county nonattainment area, has attained the 2008 ozone NAAQS. In addition, as described within this document, all applicable provisions of the CAA regarding redesignation to attainment have been met. Therefore, the WDNR, on behalf of the State of Wisconsin, hereby requests that EPA redesignate eastern Kenosha County from nonattainment to attainment for the 2008 ozone NAAQS.