February 5, 2018

Mr. John Mooney
Chief, Air Programs Branch, EPA Region V
77 West Jackson Street
Chicago, IL 60604,

RE: Docket ID No. EPA–HQ–OAR–2017–0548

Dear Mr. Mooney:

Wisconsin Manufacturers & Commerce, Wisconsin Paper Council, Wisconsin Industrial Energy Group, Wisconsin Food Products Association, Wisconsin Cast Metals Association and the Metropolitan Milwaukee Association of Commerce appreciate this opportunity to submit these comments on the U.S. Environmental Protection Agency's (U.S. EPA) proposed nonattainment designations in regards to the above-referenced U.S. EPA Docket.

I. Background

Our organizations represent a significant segment of Wisconsin's industrial sector. Our members are some of the most heavily regulated and extensively permitted businesses in the entire State of Wisconsin.

Wisconsin Manufacturers & Commerce ("WMC") is Wisconsin's statewide chamber of commerce and manufacturers' association. With roughly 3,800 members statewide, WMC is Wisconsin's largest business trade association. Member companies are of all sizes and across all sectors of Wisconsin's economy. Since our founding in 1911, WMC has been dedicated to ensuring that Wisconsin is the most competitive state in the nation to do business.

Wisconsin Paper Council ("WPC") advocates for and represents the state's pulp and papermaking industry. Wisconsin is the number one papermaking state in the U.S. and its members provide family-supporting jobs for over 31,000 employees throughout Wisconsin. Papermakers are dedicated to providing good jobs as well as being environmentally responsible community partners.

Wisconsin Industrial Energy Group ("WIEG") is a nonprofit consumer advocacy trade association that advocates for affordable and reliable energy. WIEG represents many of Wisconsin's largest employers who, together, employ more than 50,000 Wisconsin residents.

Midwest Food Products Association ("MWFPA") is a trade association that advocates on behalf of food processing companies and affiliated industries in Illinois, Minnesota, and Wisconsin. MWFPA represents 300 companies in the food industry that employ over 20,000 people in Wisconsin.

Wisconsin Cast Metals Association ("WCMA") is a trade association consisting of some 30 member firms, representing more than 18,000 employees and approximately 85 percent of the production of metal castings in Wisconsin. Known as the Metropolitan Milwaukee Foundrymen,

this association was one of the first organized efforts by Wisconsin foundries to begin dealing with environmental issues.

Metropolitan Milwaukee Association of Commerce ("MMAC") is a business trade association serving approximately 1,800 member businesses in Milwaukee, Waukesha, Washington and Ozaukee counties. MMAC is a not-for-profit organization that has been serving the business community for more than 150 years.

Our associations and our members have worked collaboratively with regulators and the general public to consistently improve air quality by investing billions of dollars to reduce emissions throughout Wisconsin. We are very proud of what Wisconsin has been able to accomplish and the reductions that we have achieved. Unfortunately for Wisconsin, no matter how much we continue to reduce emissions, factors outside of our state's control (including transport from other states and other countries) will continue to hinder air quality in a very limited geographic region of our state.

For the reasons stated herein, we request U.S. EPA reconsider and readjust the geographic boundaries of the proposed nonattainment zone, particularly as it relates to Waukesha, Washington, Ozaukee, Milwaukee, Sheboygan[1] and Racine counties. Utilizing the five-factor analysis, we believe U.S. EPA should have narrowed the nonattainment zone in Waukesha, Washington, Ozaukee, Milwaukee and Racine counties in a similar way to what was proposed by U.S. EPA for Door, Manitowoc and Sheboygan counties, and consistent with the Wisconsin Department of Natural Resources' (WDNR) supplemental submittal to U.S. EPA made in April of 2017,[2] which was referenced repeatedly in U.S. EPA's technical support document.

II. EPA Is Not Consistent in Defining Areas Deemed to Have Measured Ozone in Excess of the 2015 NAAQS

In April of 2017, WDNR provided supplemental information to U.S. EPA outlining the areas of the state with monitors that measured exceedances of the 2015 Ozone National Ambient Air Quality Standard (NAAQS) of 70 parts per billion (ppb). This included an area of roughly three miles inland from the lakeshore for all of Ozaukee, Sheboygan and Manitowoc counties, with a small segment of northern Milwaukee and Door counties as well. Notably, in its analysis, WDNR found no monitored exceedances of the ozone NAAQS in Washington, Waukesha, or Racine Counties.

U.S. EPA acknowledged WDNR's analysis and appears to have largely agreed with WDNR's nonattainment boundary recommendations for Manitowoc and Sheboygan Counties, and at least somewhat with Door County. Similarly, U.S. EPA determined that only a portion of Kenosha County should be designated as nonattainment. We support U.S. EPA's conclusion that the elevated ozone concentrations measured at these riparian monitors do not extend inland more than a short distance.

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[1] We understand that Kohler Company has filed comments requesting an adjustment to the EPA's proposed non-attainment boundary for Sheboygan County. We support that request.

[2] Wisconsin DNR, "2015 Ozone National Ambient Air Quality Standards Area Designations, Technical Support Document," April, 2017. Accessed at: https://dnr.wi.gov/topic/AirQuality/documents/OzoneTSD20170420.pdf (hereafter "WDNR April Supplement")

However, we believe that the same analysis and data compels U.S. EPA to make a similar finding with respect to Milwaukee, Ozaukee and Racine Counties (*i.e.*, that ozone concentrations drop steeply as one moves inland from the riparian monitors in these three counties), and by extension to Washington and Waukesha counties as well. Indeed, these counties experience similar lake breeze and synoptic meteorology as Sheboygan and Manitowoc[3] that results in photochemically aged, ozone rich air masses from upwind areas being picked up by the shoreline monitors in Milwaukee, Ozaukee and Racine Counties, but dropping off sharply as one moves inland. This is consistent with the reasoning and conclusion underlying the model of Lake Michigan ozone formation developed by *Dye, et al*, which is based upon aircraft and ground based data collected all along the Lake Michigan Shoreline. It is also consistent with more recent LADCO photochemical modeling which shows the precipitous and consistent drop in ozone levels up and down the entire Wisconsin coast line as one moves inland.[4]

WDNR's April 2017 Supplemental Submittal also analyzed the data collected from the inland and lakeshore monitor pairs located, respectively, in Sheboygan and Kenosha Counties (these Counties are home to the two lakeshore monitors that consistently read the highest levels of ozone in the state). WDNR's analysis of the fourth highest maximum daily 8-hour average ozone concentrations for the monitors in each county clearly show that inland ozone levels on each day were consistently and dramatically lower than what was measured at their sister lakeshore monitor (by anywhere from 4 -14 ppb). Racine County is immediately north of the Kenosha monitors and one would expect similar differences in the lakeshore/inland ozone levels in Racine.

There is simply no justification to treat Milwaukee, Ozaukee, Washington, Waukesha and Racine Counties any differently when it comes to this issue of elevated ozone concentrations being confined to a narrow band lying along the shoreline of Lake Michigan. We ask that U.S. EPA make a finding consistent to that effect for Milwaukee, Ozaukee, Washington, Waukesha and Racine Counties.[5]

III. U.S. EPA's Proposal to Designate Racine, Waukesha and Washington Counties as Nonattainment is Flawed

Although Racine, Waukesha and Washington Counties do not have a monitor measuring an exceedance of the 2015 ozone standard, U.S. EPA nonetheless proposes that each county be designated as nonattainment in its entirety. U.S. EPA reasons that emissions emanating from each of the three counties are respectively contributing to violations of the 2015 ozone NAAQS in downwind areas. The downwind areas that are assumed to be impacted are the two riparian

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[3] Past studies do not suggest that the lake breeze and synoptic meteorology experienced in Sheboygan and Manitowoc Counties vary meaningfully from that experienced in Milwaukee or Racine Counties. Dye, T. S., Roberts, P. T., and Korc, M. E.: Observations of transport processes for ozone and ozone precursors during the 1991 Lake Michigan Ozone Study, J. Appl. Meteorol., 34, 1880 and 1889, 1995.

[4] WDNR April Supplement, Pages 15 and 16: "Recent photochemical modeling conducted by the Lake Michigan Air Directors Consortium (LADCO) indicates there is a steep, consistent ozone concentration gradient along the entire Lake Michigan lakeshore…"

[5] Washington and Waukesha Counties have no monitors that have detected ozone above the 2015 NAAQS.

monitors in Ozaukee County and the riparian Bayside monitor in Milwaukee County (the "Downwind Monitors"). There are various reasons why U.S. EPA's assumption is flawed.

By way of background, U.S. EPA generally uses a five factor analysis to determine whether an area should be designated as nonattainment. The first criterion is the air quality data for an area. If an area has one or more exceeding monitors (i.e. monitors with design values greater than 70 ppb) that generally forms the basis for designating that area as nonattainment.[6] The remaining four factors are then used as the technical basis for determining the spatial extent of the designated nonattainment area surrounding the violating monitor(s) based on a consideration of what nearby areas are contributing to a violation of the NAAQS.

Although unclear, it appears that U.S. EPA may have decided to establish the counties surrounding Milwaukee as the nonattainment area boundary for the Downwind Monitors largely because it is considered one combined statistical area (CSA). However, that would not be appropriate. As was done for Sheboygan County, EPA's 5-factors analysis must be used as the technical basis for determining the appropriate nonattainment area boundary.[7] Per U.S. EPA's own guidance, it is not appropriate to presume that an entire CSA should be that boundary.[8] As outlined below, the 5-factor analysis does not support including Racine, Waukesha and Washington in the nonattainment area established for the Ozaukee County and/or the Bayside monitors, nor does it support including the entirety of Milwaukee and Ozaukee counties. Each criterion is addressed in order.

1. Air Quality Data

U.S. EPA's TSD recognizes that Racine, Washington, and Waukesha counties do not have a monitor measuring an exceedance of the 2015 ozone standard. As such, the air quality data for these counties does not warrant designating any of them as nonattainment.[9] Pursuant to U.S. EPA guidance, U.S. EPA must examine the remaining four factors to determine whether the spatial extent of the designated nonattainment area for the Ozaukee County and/or the Bayside monitors should include Racine, Waukesha or Washington counties.

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[6] An exception would be Sheboygan County which has the Kohler-Andrae monitor which has measured exceedances of the 2015 ozone NAAQS. As explained by Kohler Co. in its own comments filed in this docket, The Kohler-Andrae monitor should not serve as the basis for designating Sheboygan County as non-attainment because it is improperly located, does not reflect air quality in the County and is measuring ozone emanating from upwind states.

[7] U.S. EPA, "Intended Area Designations for the 2015 Ozone National Ambient Air Quality Standards Technical Support Document (TSD)," page 41 of 82. Accessed at: https://www.epa.gov/sites/production/files/2017-12/documents/wi_120d_tsd_rewrite_final.pdf (hereafter referenced as "TSD").

[8] This approach is also wholly consistent with U.S. EPA's implementation guidance which noted "The EPA emphasizes it does not intend the statistical area boundary to be a presumed nonattainment boundary." See, February 25, 2016 Guidance, Page 6, First Full Paragraph. Accessed at: https://www.epa.gov/sites/production/files/2016-02/documents/ozone-designations-guidance-2015.pdf

[9] EPA's proposal notes that there is not three years of certified data from which to base a nonattainment designation decision for the County. The data for the 2017 ozone season is not certified. *See* TSD, Page 20 of 82.

2. Emissions and Emissions-Related Data

This second factor, emissions related data,[10] is meant to consider whether emissions from the upwind counties (i.e., Racine, Waukesha or Washington Counties) are each respectively contributing to a monitored violation at the Ozaukee County and/or the Bayside monitors. There are various pieces of information that U.S. EPA evaluates under this factor, each of which demonstrates that Racine, Waukesha and Washington Counties do not meet this criterion.

a. Upwind Culpability of Racine, Waukesha or Washington Counties on the Ozaukee County and/or Bayside monitors.

According to LADCO source apportionment modeling and as highlighted by WDNR in their April 2017 supplement, *total Wisconsin* sources account for less than 15% of the ozone measured at the three downwind monitors. Specifically, *Wisconsin* sources account for approximately 12% of monitored ozone at Harrington Beach, 15% at Grafton and 7% at Bayside.[11] Of course, the emissions from sources located in Racine, Waukesha or Washington Counties comprise a very small subset of these *total Wisconsin* emissions which were analyzed by LADCO's apportionment modeling (approximately 5%). As such, emissions from each of these three counties could not be contributing more than a nominal amount to the ozone detected at the Ozaukee County and/or Bayside monitors.

Looking at other factors associated with this criterion, Racine cannot be found to contribute to excess ozone at the Ozaukee County and/or the Bayside monitors. U.S. EPA found that Racine County experienced a decrease in population during the relevant time period under consideration.[12] This suggests that any alleged impact from Racine County area sources has actually decreased. U.S. EPA also found that less than one quarter of Racine workers commuted to or through Milwaukee or Ozaukee Counties.[13] This too suggests that mobile emissions associated with Racine County would have a minimal impact on the Ozaukee and Bayside monitors.

b. A Rough Range of Impact of Racine, Washington or Waukesha County Emissions on the Ozaukee County and/or Bayside monitors.

The range of potential contributions by Racine, Washington or Waukesha County emissions on the Ozaukee County and/or Bayside monitors can be estimated using an analysis approved by U.S. EPA for evaluating ozone impacts attributable to PSD major sources. In this regard, LADCO has performed photochemical modeling for the region to show the emission levels needed to achieve ozone reductions at Wisconsin monitors. WDNR has used this data in the past as part of PSD permit applications to calculate that it takes from 17,349 tons per year (tpy) to 25,604 tpy of total VOC and NOx emissions to result in a 1 ppb increase in ozone

[10] Emission related data includes locations of sources, population, amount of emissions, and urban growth patterns.
[11] WDNR April Supplement, Pages 36 and 37.
[12] TSD, page 14 of 82.
[13] TSD, page 16 of 82.

concentration.[14] This information can be used to roughly quantify the anticipated range of impact by Racine, Waukesha and Washington Counties on the Downwind Monitors.

Total Emissions. U.S. EPA's TSD quantifies the total NOx and VOC emissions in Racine, Washington and Waukesha Counties as:

Table 1 – Total Emissions from Racine, Washington and Waukesha Counties

County	NOx Emissions (tpy)	VOC Emissions (tpy)
Racine	4,153	4,296
Washington	3,543	3,625
Waukesha	9,685	10,526

Utilizing the estimates that it takes between 17,349 and 25,604 tpy of total NOx and VOC emissions to generate 1 ppb of ozone, we can produce an estimated range of how much ozone in ppb the actual emissions from Racine, Washington and Waukesha counties produce:

Table 2 – Ozone Generated from Racine, Washington and Waukesha County Emissions

County	Total Ozone Precursor Emissions (tpy)	Ozone Generated (ppb)
Racine	8,449	0.33-0.49
Washington	7,168	0.28-0.41
Waukesha	20,211	0.79-1.16

If one assumes that all of that potential ozone from one of these counties were to be transported to and impact only one of the Bayside or Ozaukee monitors at full concentration (which is a highly improbable occurrence) that impact would still be well below the level of contribution that U.S. EPA had traditionally used to determine whether an upwind jurisdiction is impacting a downwind monitor. In the much more likely event that the ozone is diluted and spread amongst the three monitors, the impacts from Racine, Washington and Waukesha counties becomes even less.

U.S. EPA guidance also provides that any "contribution determination" should be made on a case-by-case basis; there is no "bright line" test for making such a determination. U.S. EPA further notes that "Section 107(d) of the CAA does not require the EPA to set a threshold contribution."[15] Given the data available for emissions from Racine, Washington and Waukesha counties and elsewhere, U.S. EPA has good reason to significantly narrow the nonattainment zone consistent with WDNR's April 2017 Supplement.

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[14] *See*, for example, WDNR "Correspondence Memorandum, Ozone Air Quality Analysis for a PSD Permit for Aarrowcast – Shawano," Dated June 7, 2012: "To provide a range of impact, the total emission reductions within Wisconsin were compared to predicted changes in ozone concentration in Door County (a rural area expected to have limited local VOC reduction) and Milwaukee County (an urban area expected to have greater local VOC reduction). Using this data it is estimated that it takes from 17,349 tons per year to 25,604 tons per year of total VOC and NO_x reductions to result in a 1 ppb reduction in ozone concentration."

[15] U.S. EPA, February 25, 2016 Guidance, Attachment 3. Accessed at: https://www.epa.gov/sites/production/files/2016-02/documents/ozone-designations-guidance-2015.pdf

c. The Ozaukee County and Bayside Monitors Will Show Attainment Without Any Reductions From Racine, Waukesha and Washington County.

In October 2017, U.S. EPA provided states with guidance related to the development of State Implementation Plans (SIPs) and which addresses the "good neighbor" provisions of the Clean Air Act.[16] As part of that guidance, U.S. EPA modeled attainment values for all ozone monitors in Wisconsin. Notably, U.S. EPA found that by simply implementing the regulations currently "on the books" (without any 2015 ozone NAAQS implementation regulations), all of the monitors in Wisconsin will show attainment with the 2015 ozone NAAQS by 2023.[17] The ozone levels predicted for the Ozaukee County and/or Bayside monitors are well below the 2015 ozone NAAQS.

Recent modeling performed by the Midwest Ozone Group (MOG) reached a similar set of conclusions. The relevant MOG modeling results are set forth in Table 3.

Table 3 - Midwest Ozone Group Modeling Results

Monitor	Name	DVfuture	Transport*	Domestic
550590019	Kenosha, Wisconsin	58.70	9.79	48.91
550610002	Kewaunee, Wisconsin	64.00	15.18	48.82
550710007	Manitowoc, Wisconsin	65.60	10.10	55.50
550790010	Milwaukee, Wisconsin	55.80	8.42	47.38
550790026	Milwaukee, Wisconsin	60.40	7.83	52.57
550790085	Milwaukee, Wisconsin	65.40	11.25	54.15
550890008	Ozaukee, Wisconsin	65.70	10.15	55.55
550890009	Ozaukee, Wisconsin	62.20	12.30	49.90
551010017	Racine, Wisconsin	57.50	10.52	46.98
551170006	Sheboygan, Wisconsin	70.80	15.70	55.10
551330027	Waukesha, Wisconsin	58.10	10.96	47.14

*The transport component essentially quantifies the impact of international emissions on the monitors.

It is axiomatic that Racine, Waukesha and Washington County emissions cannot be meaningfully contributing to exceedances measured at the Ozaukee County and/or Bayside monitors given this modeling analysis. U.S. EPA's own modeling shows that downwind exceedances relied upon in the TSD will be eliminated without any further emission reductions within Racine, Waukesha and Washington Counties.

Based upon the level of emissions in Racine, Washington and Waukesha counties, the scientific and technical information that we have available, we know sources in these counties are not significantly contributing to ozone levels at the Milwaukee, Ozaukee, Sheboygan, Manitowoc or Door County monitors.

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[16] U.S. EPA, "October 2017 Memo and Supplemental Information on Interstate Transport SIPs for the 2008 Ozone NAAQS." Accessed at: https://www.epa.gov/airmarkets/october-2017-memo-and-supplemental-information-interstate-transport-sips-2008-ozone-naaqs (herein "U.S. EPA October 2017 Memo")

[17] *See* U.S. EPA October 2017 Memo, Appendix A, Pages A29 and A30

d. U.S. EPA Does Not Account for the Disbenefit of Controlling NOx in Racine, Waukesha and Washington Counties.

U.S. EPA has long recognized that controlling NOx in the Milwaukee area can increase ozone formation. Pursuant to Section 182(f) of the CAA, U.S. EPA has issued a NOx Waiver for the area based upon that finding.[18] Recent LADCO modeling also predicts that further reductions in precursor pollutant emissions in Wisconsin will have an ozone disbenefit in some areas and thereby *increase* ozone concentrations. This was demonstrated for the Bayside monitor (among others) which had a predicted 0.2 ppb *increase* in ozone associated with reducing Wisconsin ozone precursor emissions by 10%.[19] See Table 4 below.

Table 4 - LADCO Zero Out Modeling Results[20]

	Base Case DVs		10% Cut Run*				Zero-Out Sheboygan Run*			
			3x3 DVs		1x1 DVs		3x3 DVs		1x1 DVs	
Monitor	3x3	1x1	DV	change	DV	change	DV	change	DV	change
Chiwaukee Prairie	66.4	69.5	66.4	0	69.6	+0.1	66.3	-0.1	69.5	0
Racine	64.9	68.4	64.8	-0.1	68.5	+0.1	64.8	-0.1	68.4	0
Milwaukee Health Ctr	61	65.6	60.9	-0.1	65.6	0	60.9	-0.1	65.5	-0.1
Milwaukee SER	65.7	71.9	65.6	-0.1	72.2	+0.3	65.6	-0.1	71.7	-0.2
Bayside	70.9	75.5	70.8	-0.1	75.7	+0.2	70.7	-0.2	75.5	0
Grafton	69.7	71.4	69.7	0	71.4	0	69.7	0	71.4	0
Harrington Beach	66.8	68	66.7	-0.1	67.9	-0.1	66.8	0	67.9	-0.1
Kohler Andrae	76.1	77	76	-0.1	76.9	-0.1	76.1	0	77.6	+0.6
Manitowoc	70.9	71.6	70.8	-0.1	71.4	-0.2	70.8	-0.1	71.5	-0.1
Kewaunee	68.1	68.4	68	-0.1	68.3	-0.1	68	-0.1	68.1	-0.3
Newport	68.3	68	68.2	-0.1	67.9	-0.1	68.1	-0.2	67.8	-0.2
Lake Geneva	63.7	63.4	63.6	-0.1	63.3	-0.1	63.6	-0.1	63.3	-0.1
Waukesha	61.8	63	61.8	0	63.1	+0.1	61.8	0	63	0

*The "10% cut run" reduced VOC and NOx emissions by 10% from all sectors except onroad and biogenics in the 8 lakeshore counties along with Waukesha and Washington Counties. The "zero-out Sheboygan run" completely eliminated emissions from all sectors in Sheboygan County except for biogenics.

This suggests that to the extent Racine, Waukesha and Washington County emissions are somehow meaningfully impacting the Ozaukee County and/or Bayside monitors, those impacts are having a net effect of *decreasing* ozone formation. EPA's TSD fails to account for the rather unique NOx scavenging phenomenon that occurs in the western Lake Michigan area.

3. Meteorology (weather/transport patterns)

a. HYSPLIT analyses actually support WDNR's April 2017 approach.

U.S. EPA HYSPLIT Analysis. U.S. EPA relied upon HYSPLIT projections to show the trajectories of air masses for each exceedance day to assert that Racine, Waukesha and Washington counties contribute to the measured exceedances at the Ozaukee County and/or Bayside monitors. This data, however, actually suggests otherwise.

[18] 61 Fed. Reg. 2438 (1/26/96), *codified at* 40 CFR 52.2585
[19] WDNR April Supplement, Table 5.1
[20] WDNR April Supplement, Page 40.

U.S. EPA used HYSPLIT modeling at 100, 500 and 1,000 meters above ground level. Notably, as the HYSPLIT modeling conducted by U.S. EPA shows, the closer to ground level the analysis got, the more likely the trajectory was coming from over Lake Michigan and other states, rather than Racine, Waukesha or Washington counties. This data is backed up by WDNR's April 2017 supplemental information which specifically showed "in all cases, ozone concentrations measuring in excess of 70 ppb are being delivered to the monitors from over Lake Michigan."[21]

Wind Roses for the Ozaukee Monitors. WDNR's April 2017 Supplement also included much more detailed and precise analyses of the wind roses for the hours during which ozone exceeded 70 ppb at the Ozaukee County monitors (the Bayside monitor does not collect wind data).[22] This data could not be clearer in showing that ozone impacting those monitors did not come from Racine, Waukesha and Washington counties. U.S. EPA's TSD does not address this data.

Bayside Hysplit Analysis. As for the Bayside monitor, WDNR provided a HYSPLIT back trajectory which shows the origin of emissions for the high ozone event on April 17, 2016. This analysis clearly shows that the Bayside monitor was impacted by air masses traveling over Lake Michigan.

As discussed *supra*, not only are sources in Racine, Waukesha and Washington counties not producing a significant amount of emissions to impact the attainment of the 2015 Ozone NAAQS at the Ozaukee County and/or Bayside monitors, but the monitors themselves have never exceeded a standard when monitoring air coming from those counties. Rather, on days of excess ozone, the monitors are measuring ozone produced from precursor emissions generated elsewhere.

b. International Transport

In the proposed Ozone SIP Requirements Rule, U.S. EPA recognized that "contributions to U.S. ozone concentrations from sources outside of the U.S., which can be from nearby sources in a bordering country or from sources many thousands of miles away, can affect to varying degrees the ability of some areas to attain and maintain the 2015 ozone NAAQS."[23] In a 2015 memorandum which accompanied the revision to the ozone NAAQS, EPA further noted that "states are not responsible for reducing emissions from [these international] background sources." [24]

LADCO modeling for Wisconsin's lakeshore monitors projects the amount of ozone that can be traced to sources outside of the United States. For the Harrington Beach monitor, these so called "boundary conditions" accounted for approximately 21% of ozone, for the Grafton monitor it was approximately 22%, and for the Bayside monitor it was approximately 21%.[25] That is, more than one-fifth of the ozone measured at the monitors is coming from sources outside of the United States.

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[21] WDNR April Supplement, Page 25.
[22] WDNR April Supplement, Page 27.
[23] 81 FR 81303.
[24] U.S. EPA, "Tools for Addressing Background Ozone." Accessed at: https://www.epa.gov/sites/production/files/2015-10/documents/20151001_background_ozone.pdf.
[25] WDNR April Supplement, Page 36 and 37.

LADCO's modeling is supported by recent modeling work performed by the MOG. MOG reviewed U.S. EPA's modeling data in support of the Cross State Air Pollution Rule (CSAPR). MOG identified boundary conditions, initial conditions, and Canadian and Mexican emissions, all of which can be fairly viewed as constituting international emissions. MOG concluded that but for international transport no monitor in the United States would have an ozone concentration in 2017 greater than 66 ppb – well below the 2015 ozone NAAQS of 70 ppb.[26]

MOG's most recent assessment provides specific values quantifying the impact of international emissions on Wisconsin's monitored ozone concentrations. These results are set forth in Table 3, *supra*, under the column labeled "Transport."

This data demonstrates that approximately 20% of the ozone measured at the Ozaukee County and/or Bayside monitors is from sources outside of the United States; in other words, those monitors would measure attainment "but for" emission emanating from outside the United States. Here again, it is axiomatic that Racine, Waukesha and Washington counties cannot be credibly found to contribute to exceedances measured at the Ozaukee County and/or Bayside monitors when international emissions are so clearly a culpable source causing the exceedances. Moreover, U.S. EPA should find that Wisconsin qualifies for the exemptions set forth in Section 179b of the CAA related to areas impacted by international emissions.[27]

4. Geography/Topography.

a. Lake Michigan Effect

U.S. EPA's TSD goes into extensive analysis of the meteorological conditions impacting Sheboygan, Manitowoc and Door counties. U.S.EPA referred to these conditions as "lake breeze meteorology." No such meteorology was discussed for the other Wisconsin counties, despite the fact that the exact same phenomenon is seen there.

LADCO photochemical modeling, as highlighted by WDNR's April 2017 supplemental document to U.S. EPA, clearly shows "a steep, consistent ozone concentration gradient along the entire Lake Michigan lakeshore," and further that those "elevated ozone levels drop off dramatically in Wisconsin as distance from the lake increases."[28]

It is well documented that excess levels of ozone are exclusively in a narrow band along Wisconsin's lake shore, and are the direct result of pollutants from other states and other countries.

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[26]Midwest Ozone Group, "Assessment of International Transport and Improved Ozone Air Quality." Accessed at: http://www.midwestozonegroup.com/files/Assessment_of_International_Transport_and_Improved_Ozone_Air_Quality_6.22.17.docx

[27] Section 179b of the Clean Air Act provides, "Notwithstanding any other provision of law, any State that establishes to the satisfaction of the Administrator that, with respect to an ozone nonattainment area in such State, such State would have attained the national ambient air quality standard for ozone by the applicable attainment date, but for emissions emanating from outside of the United States, shall not be subject to the provisions of section 7511(a)(2) or (5) of this title or section 7511d of this title."

[28] WDNR April Supplement, Page 15.

b. Exceptional Events

In 2015, U.S. EPA concluded "[a]lthough monitored data cannot be excluded for a determination of whether an area has attained a NAAQS based solely on the fact the data are affected by emissions from outside the U.S., such data may be excluded from consideration if they were significantly influenced by exceptional events as described in CAA section 319(b)."[29] It appears that the Wisconsin monitors were influenced on two occasions by exceptional events (wildfires) that occurred in 2016.

On May 1, 2016, a series of wildfires broke out in Alberta Canada. The wildfires spread to over 1,500,000 acres and were not declared to be under control until July 5, 2016. Emissions from these fires were transported to the United States and contributed to excess ozone levels that were recorded by monitors in numerous states.

As documented in an analysis prepared by the State of New Jersey for the U.S. EPA dated May 31, 2017, Wisconsin's ozone monitors were impacted by this event.[30] These monitored readings should be excluded from the 2016 ozone data set for the Wisconsin monitors.

Likewise, the State of Maryland submitted to U.S. EPA an analysis dated May 26, 2017 of the same event. Although this document does not specifically mention Wisconsin monitors, the analysis demonstrates that the plumes from the fire extended over the State of Wisconsin.[31] These monitored readings should also be excluded from the 2016 ozone data set for the Wisconsin monitors.

5. Jurisdictional Boundaries

For the foregoing reasons, the jurisdictional boundaries of the ozone nonattainment zone that includes the violating monitors in the Ozaukee and Milwaukee counties area should be far less expansive than initially proposed by U.S. EPA. Specifically, Racine, Waukesha and Washington Counties, the western and southern portions of Milwaukee County and western Ozaukee County should not be included in any nonattainment area.

The nonattainment area should include the violating monitors (with the exception of Sheboygan),[32] and U.S. EPA should apply the same 5-Factor analysis used in Door, Manitowoc and Sheboygan counties to establish a jurisdictional boundary based upon all available science and technical data. In the end, we believe this boundary will look very similar to that proposed by WDNR in their April, 2017 Supplemental submittal to U.S. EPA.

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[29] 80 FR 12293

[30] New Jersey Department of Environmental Protection, "Exceptional Event Demonstration Analysis For Ozone During May 25-26, 2016," Pages 34 and 35. Accessed at http://www.nj.gov/dep/baqp/Final%20EE%20for%20NJ.PDF (We understand that EPA granted a similar request made by the State of new Jersey)

[31] Maryland Department of the Environment, "Exceptional Event Demonstration and Analysis of the Northwestern Canada Wildfires' Impact on Maryland's Air Quality," Pages 22, 26-30, and 63-65. Accessed at: http://www.mde.state.md.us/programs/Air/AirQualityMonitoring/Documents/MDE_JUL_21_22_2016_EE_demo.pdf, pp. 22, 26 – 30 and 63-65.

[32] See Kohler Co. comments filed in this docket.

Additionally, U.S EPA should consider the approach taken in order to defining nonattainment jurisdictional boundaries. WDNR had suggested using the shoreline as a base and then going inland a set distance based upon available scientific and technical data points to ensure all areas not attaining the standard were included in nonattainment. By using roads, for example, as U.S. EPA proposes, the nonattainment boundary is arbitrarily gerrymandered to surely include areas that have air quality well within the attainment standard. At the very least, U.S. EPA should attempt to use a single roadway as close to that boundary as possible.

IV. Conclusion

On behalf of our member companies, we thank you for the opportunity to submit these comments and look forward to working with U.S. EPA and our state regulators to ensure Wisconsin's environment continues to improve and our economy continues to grow.

Sincerely,

Lucas Vebber
General Counsel
Director, Environmental & Energy Policy
Wisconsin Manufacturers & Commerce

Jeff Landin
President
Wisconsin Paper Council

Steve Baas
Senior Vice President of Government Relations
Metropolitan Milwaukee Association of Commerce

Nickolas George
President
Midwest Food Products Association

Todd Stuart
Executive Director
Wisconsin Industrial Energy Group

Steve Lewallen
Executive Director
Wisconsin Cast Metals Association

Copy: Speaker Paul Ryan
Representative Mike Gallagher
Representative Glenn Grothman
Representative Gwen Moore
Representative F. James Sensenbrenner, Jr.
Senator Tammy Baldwin
Senator Ron Johnson
U.S. EPA Region 5 Administrator Cathy Stepp
Wisconsin Governor Scott Walker
Wisconsin Attorney General Brad Schimel
Wisconsin DNR Secretary Dan Meyer