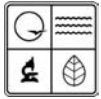


US EPA ARCHIVE DOCUMENT



Missouri Department of Natural Resources

Air Pollution Control Program

Workgroup Summary On A Proposed Recommendation for the 8-Hour Ozone Nonattainment Area Designations

Introduction

This summary describes the process used to formulate a recommendation for the proposed 8-hour ozone nonattainment area boundaries. The area boundaries are based on the most current ozone monitoring data (2000-2002) and the March 28, 2000, U.S. Environmental Protection Agency (EPA) guidance for developing 8-hour designation recommendations. The department developed the “Technical Support Document for Determination of Nonattainment Boundaries in Missouri for the 8-hour Ozone National Ambient Air Quality Standard” to gather the information necessary to make this recommendation and address the EPA criteria in detail.

Summary of Recommendation

Two metropolitan areas within the state of Missouri currently violate the 8-hour ozone National Ambient Air Quality Standard (NAAQS): St. Louis (Missouri/Illinois) and Kansas City (Missouri/Kansas). Therefore, the proposed boundaries for 8-hour ozone nonattainment areas in Missouri include the counties of Clay, Platte, and Jackson counties, and the metropolitan planning organization (MPO) portion of Cass County within the Kansas City area, and Jefferson, Franklin, St. Charles, and St. Louis counties as well as the City of St. Louis within the St. Louis area. These counties contain the majority of Missouri’s precursor emissions within each metropolitan and surrounding area. In addition, these counties or portions of counties capture the contiguous urbanized portion of these two areas.

The remainder of the state of Missouri is recommended for designation as attainment/unclassifiable.

This recommendation has been developed through in-depth technical evaluations of the available information related to the EPA guidance along with stakeholder meetings and input. During these technical reviews and stakeholder meetings, many complex issues were raised and considered. Some of these issues included: the need to include potential permitted sources in the evaluation, the need to consider the ramifications of new counties being designated nonattainment, and the important question of frequent and significant contribution to 8-hour ozone concentrations from each county that was considered. The department believes this recommendation is a fair and accurate assessment of the information and incorporates contributions of the stakeholders associated with this process. However, this document does not reflect a consensus of the stakeholders that participated in the workgroup discussions.

Background

In July 1997, EPA promulgated a revision to the ozone standard and was obligated to designate the attainment status of all areas. EPA revised the NAAQS by changing the level of the standard from 0.12 ppm to 0.08 ppm, and changing the 1-hour averaging time of the standard to an 8-hour averaging time. The Clean Air Act (CAA) allows each state to recommend initial designations of the attainment status for all areas of the State. Section 107(d)(1) of the CAA allows each state an opportunity to recommend attainment/unclassifiable and nonattainment areas including appropriate boundaries. EPA can accept the recommendation or make modifications as it deems necessary.

In July 2000, the department submitted a technical boundary designation document and, on the Governor's behalf, submitted a recommendation regarding the classification of counties under the revised 8-hour ozone standard to EPA. For the Kansas City area, the department recommended that counties of Clay, Platte, and Jackson be designated nonattainment. For St. Louis, the department recommended Jefferson, Franklin, St. Charles, and St. Louis counties, along with the city of St. Louis be designated nonattainment. This recommendation included only the current 1-hour St. Louis ozone nonattainment area counties and the Kansas City 1-hour maintenance area counties. The designation recommendation was based on 1997-1999 air quality data and the technical information available at that time.

In December 2002, Governor Holden received a letter from the EPA requesting his updated, revised, or new designation recommendation and documentation regarding the attainment status of areas within Missouri for the 8-hour ozone standard. This original request asked for recommendations by April 15, 2003, but later was revised to allow states more time to develop the recommendations. The "new" deadline for submittal of recommendations is July 15, 2003. Ultimately, EPA is required to make a final decision regarding area designations by April 15, 2004, according to the U.S. District Court for the District of Columbia Consent Decree that was filed on November 13, 2002. This decree was designed to resolve a lawsuit filed by several environmental organizations to complete the designation process for the 8-hour ozone standard.

Federal Area Designations

Unclassifiable: any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

Attainment: any area that meets the national primary or secondary ambient air quality standard for the pollutant.

Nonattainment: any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Criteria for Designation

EPA published a guidance document titled “Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards” on March 28, 2000. This guidance was written to assist states in recommending nonattainment areas under the 8-hour ozone standard. In that guidance, the EPA recommends that the Metropolitan Statistical Area (MSA) or Consolidated Metropolitan Statistical Area serve as the presumptive boundary for 8-hour ozone nonattainment areas. The Missouri portion of the St. Louis MSA is comprised of the 1-hour nonattainment area and Warren and Lincoln counties. The Missouri portion of the Kansas City MSA includes the 1-hour maintenance area and Clinton, Ray, Lafayette, and Cass. In order to remove counties within the presumptive boundary or include counties outside the presumptive boundary, each state is required to address the following information as it relates to the boundary:

- Emissions and air quality in adjacent areas
- Population density and degree of urbanization including commercial development
- Monitoring data representing ozone concentrations in local areas and larger areas
- Location of emission sources
- Traffic and commuting patterns
- Expected growth
- Meteorology
- Geography/topography
- Jurisdictional boundaries
- Level of control of emissions sources
- Regional emission reductions

Process for Developing Recommendations

As stated previously, the department worked closely with county officials, representatives from various industry groups, local metropolitan planning organizations, and environmental groups in Kansas City and St. Louis to develop the boundary recommendations. The department received a number of requests to develop a workgroup in an effort to assist the state in developing the recommendation. In addition, EPA strongly recommended that each state coordinate and communicate with local partners and other stakeholders during this designation process. Mid America Regional Council (MARC) in Kansas City, and East-West Gateway Coordinating Council and the department’s St. Louis Urban Outreach Office in St. Louis hosted several separate workgroup meetings for interested parties. The department sought public input during workgroup meetings and provided opportunities for participants to provide written comments as well. The department is, and will remain, committed to keeping stakeholders involved in this process. The department will work with U.S.EPA Region VII to foster an understanding of this recommendation and encourage EPA to reflect our recommendations in their final designations.

Workgroup Discussion

In February 2003, the department conducted stakeholder meetings to discuss the boundary designation in St. Louis and Kansas City. In St. Louis, representatives from Ste. Genevieve, St. Francois, Lincoln, Warren, and Washington counties participated in these meetings and subsequent meetings as well as industry and environmental groups. In Kansas City, the workgroup consisted of the members of the MARC's Air Quality Forum and several county officials. The earlier roundtable discussions began by distributing information regarding the 8-hour designation process. Stakeholders from both sides of the state expressed concerns about the process and potential inclusion of the MSA and surrounding counties in the boundary recommendation.

For the St. Louis area, the department received written comments expressing the desire of several counties not be included in the St. Louis 8-hour ozone nonattainment area. The St. Louis area workgroup requested a draft technical document. This document was prepared and discussed at the April 25, 2003, workgroup meeting. This discussion also focused on determining a path to develop a recommendation for the boundary. The consensus of this meeting was the workgroup needed a draft recommendation for their review. Therefore, based on stakeholder input and the technical support document, a draft recommendation for the workgroup to consider was provided. At the May 16, 2003, meeting, workgroup members were requested to submit to the department comments or language changes to the recommendation by May 20, 2003.

In Kansas City, the MARC Air Quality Forum requested that a technical workgroup be formed to examine data related to air quality in the region. The workgroup, consisting of local, state and federal air agency staff, MARC staff, and representatives from counties outside the maintenance area, held several stakeholder meetings. At the April 29, 2003, meeting, the department requested that the Forum provide a recommendation regarding the 8-hour air quality boundary for the Kansas City area. The discussion that followed addressed the criteria in the EPA guidance and focused on counties that have a potential to contribute to downwind ozone in the area. The general consensus of the workgroup was to include the portion of Cass County within the MPO boundary in addition to the existing 1-hour maintenance area in the 8-hour ozone nonattainment boundary. The recommendation was approved by the MARC Air Quality Forum and the Total Transportation Policy Committee on May 12 and May 20, respectively.

Criteria for Establishing Boundaries

Although every nonattainment area is unique, the recommendations for the St. Louis and Kansas City areas were consistently guided by the following principles:

- For existing 1-hour ozone nonattainment/maintenance areas, the recommendation is to include them in the 8-hour ozone boundary.
- For the counties surrounding the existing 1-hour boundary, the recommendation will be based on one of the following circumstances:
 - 1) Unless EPA grants an exception, any monitor that violates the 8-hour ozone standard would place the county in an 8-hour nonattainment area. Air monitoring data in 2003 may be used to determine compliance with the ozone standard prior to EPA final

decision. This is consistent with the nonattainment area boundaries for the 1-hour ozone standard.

2) Using the department's technical support document, counties or portions of counties that exhibit a pattern of frequent and significant contribution will be included in the nonattainment area. The review of contributing factors must be conducted in a consistent manner. Due to the fact each of the counties has unique characteristics, the characteristic factors of each county are compared with the other counties and evaluated in a collective fashion. Any significant changes in one of the contributing factors such as future emission growth may alter the area boundaries prior to EPA's final decision.

Section 107(d)(1)(A) of the Clean Air Act defines a nonattainment area as any area that does not meet or that contributes to nearby areas not meeting the ambient air quality standard. The EPA guidance allows states to consider at a minimum the above factors when establishing boundaries. The implementation of control strategies that will eventually be used in the attainment demonstrations for these areas is a separate process and is not a primary consideration in the boundary evaluation. It is premature to consider control strategies in this process when the control strategies are not finalized.

In order to determine trends within each metropolitan area and provide the most comprehensive set of information, the department chose to begin the evaluation with counties within each MSA and counties that border the MSA in each metropolitan area. Therefore, in Kansas City, the counties included for consideration were Cass, Clay, Clinton, Jackson, Lafayette, Platte, and Ray inside the MSA and Bates, Buchanan, Caldwell, Carroll, DeKalb, Henry, Johnson, Pettis, and Saline outside the MSA. In St. Louis, the counties included for consideration were: Franklin, Jefferson, Lincoln, St. Charles, St. Louis, St. Louis City, and Warren inside the MSA and Crawford, Gasconade, Montgomery, Pike, St. Francois, Ste. Genevieve, and Washington outside of the MSA.

The first consideration for area designation is based on air quality data to determine if the area violates the air quality standard. The monitoring data demonstrates that the Kansas City and St. Louis metropolitan areas are not attaining the 8-hour standard based on 2000-2002 monitoring period. In addition, all counties in the one-hour maintenance area are also within the presumptive boundary. The currently violating counties within the one-hour maintenance boundaries are Clay (Kansas City), St. Charles, St. Louis County, St. Louis City and Jefferson (St. Louis) counties. Therefore, these counties are included in the 8-hr boundary. As noted in the technical support document (Tables 1A, 1B, 7A, and 7B), the current design values for Kansas City and St. Louis are: 85 ppb and 90 ppb, respectively. While the monitoring data indicates violations of the 8-hr standard within each area, counties within the one-hour maintenance boundaries that are not recording a violation of the 8-hr standard or do not have monitoring stations are discussed below under the second consideration.

The second consideration is to determine if an area contributes to nearby areas not meeting the ambient air quality. This consideration is much more difficult and requires further evaluation of the factors included in the March 28, 2000, EPA guidance. In determining which areas are contributing, the department gathered information and analyzed it with respect to these factors. The proposed recommendation considered factors described in the technical document such as emission size and location, predominant meteorological conditions that lead to high ozone concentrations, population and urbanization of counties, traffic patterns and transportation

corridors, existing jurisdictional boundaries, and population/emission growth. The question is whether the information gathered supports the assumption that the county has a frequent and significant contribution to downwind ozone concentrations that violate the 8-hour ozone standard. A close evaluation of the criteria seems to indicate that if a county does not have a significant amount of precursor emissions, it should not be included in the designated area. Also, the idea of collective contribution to ozone problems that was prevalent in the Ozone Transport Assessment Group and NO_x SIP Call process leads to the fact that all precursor emission sources contribute to ozone formation. Yet, EPA has decided that only “nearby areas” should be designated nonattainment for downwind impacts. These two factors eliminate a number of counties in Missouri from inclusion in the nonattainment boundaries. Also, the incorporation of the existing 1-hour areas in the boundary is straightforward since the evaluation demonstrates a sizable contribution for each of these counties in Missouri, and EPA has stated that the 1-hour areas serve as a starting point for this process. In evaluating significant contribution, counties are compared to other counties within the MSA to determine order of potential contributions.

In the Missouri portion of the St. Louis maintenance area, every county including the City of St. Louis recorded a violation with exception of Franklin County. There are no monitoring stations in Franklin County. The closest ozone monitor to Franklin County is Queeny Park, which is located approximately 20 miles northeast of the Franklin County border. This monitor has a design value of 88 ppb. Overall, in the St. Louis area, the majority of the emissions and population are within the St. Louis Maintenance area as indicated in Table 9 of the Technical Support Document. Franklin County which has the least emissions and population of the counties on the Missouri side of the maintenance area accounts for approximately 4.5% of MSA VOC and 8% of the MSA NO_x emissions and has a population over 90,000. Franklin County emission data indicates emissions (from various part of the county) are approximately 55 and 17 tons per day of NO_x and VOC, respectively. These emissions are substantial especially given the proximity of Franklin County to the core metropolitan area. The connectivity of Franklin County to the remaining counties within the metropolitan area is considerable (31% of the working population of Franklin County works in either St. Louis County or City and 95% in the 1-hour maintenance area) and the total number of employed residents is over 45,000. In general, counties with populations greater than 90,000 have been considered large population counties. Franklin County has a population of 93,807. In addition, Franklin County experienced population growth of 16% from 1990-2000 and is projected to continue to grow by 25% by 2020. While emissions and population are considered relatively large, both population density and emission density are low. EPA guidance stated that it is best to consider control on sources over a larger area due to the pervasive nature of ground level and transport of ozone and its precursors. The collective evaluation of Franklin County included all this information and the rationale for inclusion is substantive.

In the Kansas City maintenance area, Clay County is the only county with a recorded violation. The information used to determine contribution from these remaining two counties within the maintenance area is identical to the St. Louis area. There are no monitors currently located in Jackson County. The KCI Airport monitor is located in Platte County and monitored an ozone design value of 84 ppb during 2000-02. The vast majority of precursor emissions and population around the Kansas City area are located in the 1-hour maintenance area as illustrated in Tables 2 and 3 of the Technical Support Document. The density of point source emissions, traffic, and population is substantially higher within the core metropolitan area than the surrounding portions of the region. Jackson and Platte Counties have a substantial amount of precursor emissions

(72.8 tons per day VOC and 121.72 tons per day NO_x – Jackson and 11.03 tons per day VOC and 27.97 tons per day NO_x – Platte). The corresponding percentages of the total maintenance area emissions are: Jackson 35.8% VOC and 45.0% NO_x and Platte 5.4% VOC and 10.3% NO_x. The Jackson County 2000 population is 654,880 and the Platte County 2000 population is 73,781. Platte has considerable connectivity to the remaining counties in the maintenance area (54.7% of Platte County residents work in Jackson, Clay, Wyandotte, or Johnson Counties). Jurisdictional boundaries, meteorology, and emissions are among the primary reasons for inclusion of both Jackson and Platte in the 8-hr boundary. Other factors such as level of control of sources and regional emission reductions were much less relevant in determining the boundary for these counties. Therefore, based on the size of the emission, population, connectivity to the metropolitan core, these counties are included in the 8-hour area.

Therefore, after the initial screening that included the previous discussion regarding 1-hour maintenance counties, the elimination of counties with minimal contributing factors, elimination of counties that are distant from the St. Louis and Kansas City metropolitan areas, the following counties in Missouri required additional evaluation:

Kansas City: Buchanan, Cass, and Henry
St. Louis: Lincoln, Pike, St. Francois, Ste. Genevieve, and Warren

Since the EPA presumptive boundary for the Kansas City area includes counties in the “eliminated group”, more explanation is necessary to explain the department’s decision with respect to these counties.

Clinton, Lafayette, and Ray counties are outside the predominant wind direction for elevated ozone concentrations within the area and are not likely to have frequent contributions to elevated ozone in the Kansas City area. The population of each county is between 1 and 2 percent of the MSA and each is less than 35,000 people. These counties contain a very small degree of urbanization and are somewhat distant from the metropolitan core. Overall, the precursor emissions from these counties are considerably smaller than the other MSA counties in Missouri and the likelihood of significant contribution to elevated 8-hour ozone concentrations is small.

For counties designated based on contribution to a downwind area, the EPA guidance factors represent a technique that emphasizes emissions and meteorological factors. In general, when emissions and meteorology clearly support the inclusion of an area in the boundary, less scrutiny is given to the remaining factors. An example of this clear support is Jackson County. Likewise, if emissions and meteorology clearly do not support inclusion of a county, then less scrutiny was given to the remaining factors. An example of this situation is Ray County. If the meteorology and emissions are somewhat supportive of inclusion, additional analysis of the remaining factors has more significance. The following discussion summarizes factors that influence the exclusion or inclusion of counties inside and outside the presumptive boundary. This is done in an effort to provide clarification on the factors that influenced the boundary recommendation decision. After this section, a county by county summary is provided to further clarify decisions for each county.

- Emissions and air quality in adjacent areas
- When discussing emissions and their impact on ozone formation, it is important to recognize that the location and type of emissions have an influence on these impacts. For example, one ton of emissions in a county 50 miles from the metropolitan center do not have the same ozone impact

as one ton of emissions in the downtown area. Also, it is not reasonable to assume that emissions from area/mobile and point sources are ton for ton equivalent.

The emissions from the one-hr maintenance area counties are considered significant for the purpose of boundary designation. In general, for the purposes of this boundary designation, counties that have a range of 2-4 % of total VOC or NO_x emissions in the MSA can be considered to have an impact on the downwind area. Therefore, emissions are definitely a strong factor for additional outside counties. For the counties mentioned above that are located farther from the Kansas City core maintenance area, the emissions could be considered to have an impact. Cass, Henry, and Buchanan Counties have higher emissions than the other boundary counties (as shown in Table 3 of the Technical Support Document) and their VOC or NO_x emissions are comparable to Platte County. The majority of the VOC emissions from all these counties are attributed to area and mobile sources. The majority of the NO_x emissions in Buchanan and Henry County are from power plants. VOC emissions are typically considered at a local level while NO_x emissions are considered on a local and transported basis. The power plants mentioned above are subject to the Missouri NO_x state rule.

Table 9 presents the emissions and population numbers for the St. Louis MSA area and the surrounding areas. The majority of the emissions and population are within the St. Louis Maintenance area. Franklin County which has the least emissions and population of the maintenance area accounts for a approximately 4.5% to 8% of the MSA VOC and NO_x emissions which was considered significant for the reason stated in the previous Franklin County discussions. Lincoln and Warren's emissions represent less than 2% of the MSA total for VOC emissions and less than 1% of the MSA total for NO_x emissions. Thus, this information and other factors lead to the decision that Lincoln and Warren Counties were not included in the boundary. St. Francois and Pike County have VOC emissions that represent 2.3% and 3.3% of the MSA total, respectively. The NO_x emission percentage is 1.3% for St. Francois and 5.3% for Pike. This level of emissions warrants further investigation of the remaining factors in the decision-making process. While Pike County has the highest emission of the surrounding area, it is located predominantly downwind. The majority of the NO_x emissions from the Pike County are from a cement kiln. St. Francois County emissions are predominantly area and mobile source emissions, but are substantially smaller than the Missouri counties in the existing 1-hour maintenance area. Since VOC is not typically considered a transport pollutant and there is a sizeable distance to the core metropolitan area, the St. Francois emissions do not support the inclusion of this county in the 8-hour boundary.

While Ste. Genevieve County represents approximately 1.2% and 2.5 % of the MSA for NO_x and VOC, respectively, the majority of the NO_x emissions in Ste. Genevieve County are attributed to point source emissions. There is potential point source emission growth that would increase these emission totals dramatically. However, current NO_x emissions from Ste. Genevieve are less than 27 % of the NO_x emissions of Franklin County. The current emissions are not considered significant enough to include the Ste. Genevieve County in the boundary. Other factors are examined to determine if there is a collective contribution that would warrant the inclusion of the Ste. Genevieve County to the 8-hr boundary designation.

- Population density and degree of urbanization including commercial development

Figures 5 and 6 of the Technical Support Document illustrate that the population density and urbanization are highest in the core of the Kansas City maintenance area. Among other factors, this factor supports the inclusion of Platte, Clay, and Jackson counties. The counties surrounding the one-hr maintenance area are mostly rural with exception of the northern Cass County and Buchanan County. Buchanan County has a large population density, however, it is quite distant and downwind from the contiguous Kansas City metropolitan area. Other factors support the exclusion of Buchanan County from the 8-hour boundary. This factor collectively with other factors clearly lead to the inclusion of the northern Cass County in the 8-hr boundary. The population of Cass County is currently over 80,000 with significant expected growth in the future (highest in the MSA). Approximately 56 percent (45,936) of the residents in Cass County reside inside metropolitan planning organization (MPO) portion of Cass County.

Figure 18 and 19 of the Technical Support document demonstrates that the highest population density and urbanization in the St. Louis area is located within the core of the 1-hour maintenance area. Most of the surrounding counties including Warren, Ste. Genevieve and Lincoln are rural areas with small populations. The total populations of Ste. Genevieve, Warren County and Lincoln County are less than 20,000, 25,000 and 40,000, respectively. This data further supports the decision to exclude Warren, Ste. Genevieve, and Lincoln. The 2000 census estimated the population of St. Francois County to be 55,641. The urbanization and population density of St. Francois County are dramatically less than the downtown core area and there is no strong linkage between this county and the existing 1-hour maintenance area. These and other factors collectively did not support the inclusion of St. Francois County in the 8-hr nonattainment.

- Monitoring data representing ozone concentrations in local areas and larger areas

In the Kansas City area, out of the three monitors in Clay County, Liberty monitor is the only monitor that recorded a violation. There are no monitors currently located in Jackson County. The KCI Airport monitor is located in Platte County. Rocky Creek monitor which has one year of monitoring data recorded an exceedance in 2002. Its fourth highest monitoring value is 91 for the year 2002. This monitor is located in Clay County, adjacent to Platte County. Table 1 of the Technical Support Document depicts that Richards Gebaur- South monitor has the lowest monitoring value based on 2000-2002 data for the Kansas City area. This monitor is located in Cass County with a design value of 79 ppb. Numerous exceedances were recorded at the KCI Airport monitor.

In the St. Louis maintenance area, every county including the City of St. Louis recorded a violation with exception of Franklin County. There are no monitoring stations in Franklin County. The closest ozone monitor to Franklin County is Queeny Park, which is located approximately 20 miles northeast of the Franklin County border. It appears to be reasonable to assume that the current monitoring network design value represents the attainment status of the 8-hr standard for the existing one-hour boundary.

- Location of emission sources

Figure 3 of the Technical Support Document shows the location of VOC point sources in the Kansas City area. The majority of the VOC sources are in the core of the maintenance area. Based on 1999 data, Buchanan County has two sources with actual emissions over 100 tons per

year. Both of these facilities are located in St. Joseph and recently have undergone a BACT analysis under the PSD program. Figure 3 depicts no other sources in the surrounding counties are over 100 tons per year. There are very few VOC sources that have emissions less than 100 tons. The NOx point source emissions are scattered within the maintenance area as shown in figure 4 of the Technical Support Document. There are a number of very large NOx sources located outside the 1-hr maintenance area in Missouri. Three of the four sources with greater than 1,000 tons per year of NOx emissions are power plants. The emissions from these sources are addressed under the Statewide NOx rule. The location of area and mobile sources exhibit similar characteristic to population and traffic patterns since population and traffic counts are often utilized to determine emissions for area and mobile sources. Thus, location of mobile and area sources for both St. Louis and Kansas City are best addressed under population density, urbanization, and traffic patterns factors (see figures 5-9,14 15,18-20). Point sources in St. Louis are mostly located within the one-hour maintenance area. There are a few NOx major sources located in Ste. Genevieve and Pike counties. These point sources will be addressed under Level of Control of Emissions Sources. Through the collective evaluation of all the factors, the location of emissions sources factor is a determining factor for the inclusion of northern Cass County (mobile and area source emissions). The location of emission within the remainder of the counties is not a strong factor for inclusion/exclusion of those counties. However, the contribution from upwind point sources or proposed sources is a important consideration for inclusion/exclusion of counties.

- Traffic and commuting patterns

Traffic and commuting patterns clearly support the inclusion of the existing maintenance area. Figures 7-9 of the Technical Support Document illustrate the traffic patterns for the Kansas City area. The majority of the traffic occurs within the maintenance area with additional traffic on major interstate highways. The inclusion of the 1-hour maintenance area is further supported by this factor. In addition, a considerable amount of VMT volume in Cass County occurs in the MPO portion of the county. It is estimated that 37.5 percent (949,104 VMT) of the total county VMT is in the MPO portion. More than 60% of employed Cass county residents work in the 1-hour maintenance area. Commuting data shows commuter linkage to metropolitan area from Clinton, Ray, and Lafayette. These counties have more than 40% of their employed residents working in the maintenance area. However, the total number of employees is less than 16,000 people. In general, greater than 40% of employed residents must work in the metropolitan area and the total number of employed residents must exceed 40,000 people to establish a strong commuter linkage to the metropolitan area. Therefore, for these counties the percentage of employees does not support inclusion in the 8-hour nonattainment area. Buchanan and Henry Counties exhibit a small commuter linkage to the maintenance area (7.7% - Buchanan and 9.4% - Henry).

Figure 20 of the Technical Support Document demonstrates that most of vehicle activities occur within the St. Louis Maintenance area with additional traffic on major interstate highways. The inclusion of the one-hour area is further supported by this factor. While St. Francois County has more traffic than other surrounding counties, it does not have a strong commuter linkage to the metropolitan area. Table 10 of the Technical Support Document indicates that approximately 71% of work-trips are within the county. The percentage of work trips to the 1-hour maintenance area is less than 20% from St. Francois County. Only 21% of the 8,343 employed residents in Ste. Genevieve county commute to the 1-hour maintenance area. The total number of employed residents in Ste. Genevieve County is less than 1% of the total employed residents

in the 1-hour maintenance area. Therefore, neither of these counties exhibit a pattern of commuter linkage and this factor is not supportive of inclusion in the nonattainment area. . The counties outside the MSA do not exhibit a strong connectivity (commuter linkage) to the metropolitan area. Warren and Lincoln's commuting pattern indicate a connectivity of greater than 50% to the maintenance area, but the total number of employed persons is 18,386 and 11,978 for Lincoln and Warren Counties. Pike County has only a 7.7% commuter linkage to the maintenance area and, therefore, is not connected to the area in a meaningful fashion. Therefore, commuting patterns are not considered significant to warrant inclusion of Warren, Lincoln, or Pike counties. This information supports the inclusion of the St. Louis 1-hour maintenance area only.

- Expected Growth

In the Kansas City area by 2020, Platte, Clay and Cass Counties' populations will grow by 22%, 33.8% and 38.8 %, respectively. The population of Cass County is currently over 80,000 with significant expected growth in the future (highest in the MSA). Much of this growth is expected to occur in the northern part of the county, specifically, in the urbanized portion of the county that is contiguous to the Kansas City area. About 56 percent (45,936) of the residents in Cass County reside inside metropolitan planning organization (MPO) portion of Cass County. Buchanan County population is projected to decline by 2.8% by the year 2020. Henry County population is expected to grow by 8.8% by 2020. However, the total population will remain less than 25,000. In addition, Lafayette, Clinton and Ray counties are projected to grow at rates less than the previously mentioned counties and the population of these other MSA counties is less than 40,000 people. The maximum population in 2000 for these counties is Lafayette County at 32,960. These factors support the inclusion of only the Platte, Clay and northern portion of Cass Counties. As indicate earlier, emissions from mobile/area sources are related to population and traffic pattern. We expect the emission growth rate for the area will be consistent with population growth rate if not less. With implementation of national emission control strategies for area and mobile sources, the emissions growth rates will likely be less than the population growth rates. This is true for both Kansas City and St. Louis area. As for point source emission growth in the Kansas City area, the Department's Air Pollution Control Program has a PSD application for approximately 166 tons of NOx per year.

In the St. Louis area by 2020, the following counties are projected to grow by more than 25%: St. Charles, Jefferson, Franklin, Lincoln, and Warren. The population of Lincoln and Warren County is less than 40,000 people in 2000 as compared to 93,807 in Franklin County. In 2020, the population of Lincoln and Warren Counties will be less than half the population of Franklin County. Pike County is projected to lose 0.5% of its population by 2020. Ste. Genevieve and St. Francois Counties are projected to have population increases of less than 20% by 2020. The total population of both these counties is significantly less than Franklin County. The population growth information supports inclusion of the 1-hour maintenance area only. Based on current information, the most point source emission growth is expected to occur in Ste. Genevieve County. As projected, the level of current NOx emissions will increase by 158% (15.72 tons per day to 40.61 tons per day) if growth occurs as expected. . The population and emission growth from Ste. Genevieve County are found in table 9 of the Technical Support Document. This level of emission growth would constitute a supporting factor for inclusion of this county. Based on existing photochemical modeling, this level of emission growth would have a significant downwind ozone impact on the St. Louis area.

- Meteorology

The windrose for Kansas City illustrates a pattern of predominant southerly winds. Buchanan, Clinton, Lafayette, and Ray counties are outside the predominant wind direction with respect to the metropolitan core. Even though some factors are supportive of inclusion of Buchanan County (emissions, population, traffic), the fact that Buchanan County is downwind of the area is key in determining its exclusion from the nonattainment area. Lack of connectivity to the Kansas City area and sizeable distance to the core metropolitan area further support the exclusion of Buchanan County from the boundary designation. Henry County could be considered an upwind county for the purposes of this decision. However, other factors point to the exclusion of Henry County from the nonattainment area.

In the St. Louis area, wind flows during the ozone season are predominantly from the south. However, unlike Kansas City, other wind directions (specifically west and east) have a fairly large percentage. It is important to note that the exceedance analysis in the Technical Support Document Appendix A Table 4 also illustrates a strong signal of southerly wind flows contributing to downwind exceedances. Very limited support from the meteorological analysis exists for the inclusion of Lincoln and Warren in the 8-hr boundary. Pike County is located north of St. Louis area, therefore considered a downwind county. In addition to other factors including considerable distance to the metropolitan core, low population and population density, lack of urbanization, and lack of connectivity to the St. Louis area, Pike County is eliminated from inclusion. However, St. Francois and Ste. Genevieve Counties are upwind under predominant winds for the St. Louis area. This factor argues for considerable scrutiny of emissions within these counties along with the other factors presented. Wind flows from the west and/or southwest further support the inclusion of Franklin County in the 8-hr boundary.

- Geography/topography

The topography does not have a major impact on the ozone formation in Kansas City and St. Louis metropolitan areas. The terrain of both areas is not complex and therefore did not influence inclusion or exclusion of any counties in the 8-hr boundary.

- Jurisdictional boundaries

The Missouri portion of the St. Louis MSA is comprised of the one-hour nonattainment area and Warren and Lincoln counties. East-West Gateway Coordinating Council serves the St. Louis Metropolitan Area and is designated as a Metropolitan Planning Organization by the Federal Highway Administration. The St. Louis Metropolitan Planning area is the same boundary as the one-hr ozone boundary. It consists of Jefferson, Franklin, St. Charles, and St. Louis counties as well as the City of St. Louis. Ste. Genevieve, St. Francois, Washington, Crawford, Gasconade, Pike and Montgomery are outside the MSA counties. The Missouri portion of the Kansas City MSA includes the 1-hour maintenance area and Clinton, Ray, Lafayette, and Cass Counties. Clay, Platte, and Jackson counties are the counties included in the one-maintenance area. The Mid America Regional Council (MARC)'s metropolitan planning area consists of Jackson county and portions of Clay, Platte, and Cass Counties in Missouri (see Figure 10 of the Technical Support Document). Buchanan County is in a separate metropolitan statistical area

(St. Joseph) that is not violating the ozone standards. This factor supports the boundary recommendation that capture the entire MPO areas for Kansas City and St. Louis.

- Level of control of emissions sources

The level of control of VOC emission sources within the existing 1-hour maintenance areas is considerably higher than the surrounding counties. The State Implementation Plans to attain and maintain the 1-hour ozone standard include a large number of VOC rules in both areas. These rules are listed in the Technical Support Document. In addition, Missouri has promulgated a statewide NO_x rule to reduce ozone precursor emissions and their impacts from power plants throughout the state.

This section will also address point sources and the level of control achieved by these sources. Buchanan County had a number of major point sources. One of these facilities is a soybean refinery. In August 2001, the refinery portion of this facility was issued a PSD permit. Under this permit, a BACT review was performed. On January 13, 2003, this facility applied for another PSD permit for the construction and operation of an on-site power and steam generating plant to provide the necessary electricity and steam for the soybean processing facility. The other large VOC source is a can manufacturing facility. In 2000, a BACT analysis was conducted. In 1999, this facility reported 616 tons per year of VOC. In 2002, the facility reported 231 tons of VOC per year. Significant actual emission reductions were achieved as a result of the controls required by the permit's BACT analysis.

In the St. Louis area, the majority of the significant emission growth is occurring in the Ste. Genevieve area. In 2002, a lime kiln facility was issued a PSD permit for two new rotary kilns. The majority of the NO_x emissions come from the rotary kilns which uses coal/coke for fuel. Proper kiln design & operation was determined as the method to achieve a limit of 3.5 lb NO_x/ton of product. Therefore, low NO_x burners, staged combustion, water steam injection are determine to be BACT. Some of the facility's existing kilns reported an emission factors of 3.1 lb NO_x/ ton. These emission rates would be considered Reasonable Achievable Control Technology (RACT). RACT is typically less stringent than BACT. Another large lime kiln facility in Ste. Genevieve County received a PSD permit in December 19, 1994. The bulk of their NO_x emissions come from 2 lime kilns. The facility operates at emissions rates of: Kiln 1 - 3.28 lb/ton of limestone and Kiln 2 - 4.32 lb/ton.

Since the recent PSD permits for lime kilns indicate that additional add-on emission control technology is not feasible, this type of add-on control would include Selective Catalytic Reduction. Emission Limitation under RACT would be in the range of 3.1- 4.32 lb/ton. The majority of major sources located outside the proposed boundary recommendation are well controlled. Therefore, this factor further supports the exclusion of certain additional counties in the 8-hour boundary.

- Regional emission reductions

There are a number of federal control strategies that EPA will be implementing to help reduce VOC and NO_x emissions nationwide, including national fuel strategies and the NO_x SIP call. In addition, the Missouri Statewide NO_x rule requires electric generating units to reduce NO_x emissions. If enacted, proposed legislation such as 2003 Clear Skies (further control of existing power plants) would help Missouri attain the standard with less local control measures.

The following is a brief county-by-county discussion of important factors utilized to determine inclusion or exclusion of counties in the 8-hour nonattainment boundary.

Buchanan County is in a separate metropolitan statistical area (St. Joseph), is quite distant from the contiguous Kansas City metropolitan area, and does not have a strong commuter linkage to the area. Nonetheless, large point source emissions, a population of over 80,000 people, and increased urbanization near St. Joseph point to a potential contribution from this county to the Kansas City area. However, the meteorological analysis demonstrates that Buchanan County does not contribute to elevated ozone concentrations in Kansas City (primarily downwind of the area).

Henry County is not part of the Kansas City MSA and is somewhat distant from the metropolitan area. A population of less than 25,000, small Vehicle Miles Traveled (VMT), no strong commuter linkage to the area, and limited urbanization lead to exclusion of this county from the nonattainment area. However, the meteorological analysis does indicate that Henry County could contribute to elevated ozone concentrations within the area. The single biggest emission indicator of contribution is point source NO_x emissions. The vast majority of point source NO_x emissions in Henry County originate at the Montrose Power Plant which is included in Missouri's statewide NO_x transport rule at 0.35 lb/MMBTU. Based on the collective information, the recommendation is to exclude Henry County from the Kansas City 8-hour ozone nonattainment boundary.

Cass County is part of the Kansas City MSA and the northern portion of the county is part of the contiguous metropolitan area. The population of Cass County is currently over 80,000 with significant expected growth in the future (highest in the MSA). Much of this growth is expected to occur in the northern part of the county, specifically, in the urbanized portion of the county that is contiguous to the Kansas City area. Commuting data shows strong commuter linkage to metropolitan complex and the county has a large total VMT. The meteorological evaluation demonstrates that Cass County is upwind of the Kansas City area during 8-hour ozone episode conditions. However, Cass County does not have significant point source emissions and the ozone concentrations monitored in Cass County are the lowest in the area. During the review, it was noted that 56 percent (45,936) of the residents in Cass County reside inside the MPO boundary. Also, a considerable amount of VMT in the county occurs in the MPO portion of county. It is estimated that 37.5 percent (949,104 VMT) of the total county VMT in the MPO portion. Based on the urbanization, connectivity, and population base of northern Cass County, the department concurs with the Air Quality Forum recommendation that the portion of Cass County within the metropolitan planning organization (MPO) boundary be included in the 8-hour nonattainment boundary. Attached is a Cass County MPO area map with latitude and longitude coordinates to be used for designation purpose. The following is the legal description of the MPO area within Cass County: Starting at the intersection of Kansas/Missouri State line and southwest corner of Section 30 of T 46 N, R 33 W (in Cass County); and thence east along the southern boundary of the above mentioned section to the southeast corner of Section 29 of T 46 N, R 30 W; and thence diagonally north-east to the intersection of northwest corner of Section 1 of T 46 N, R 30 W.

In the St. Louis area, Pike County is not part of the MSA and is distant from the metropolitan area. A population of less than 20,000, small VMT, no strong commuter linkage to the area, and limited urbanization lead to exclusion of this county from the nonattainment area. In addition, the meteorological analysis shows limited reason to believe Pike County contributes to ozone concentrations on a frequent basis (Pike County is northwest of the metropolitan area). The single biggest emission indicator of contribution is point source emissions. As with all the counties, the collective information must be considered to determine the need for inclusion. Based on the distance from the 1-hour nonattainment area, the rural nature of the county, the lack of connectivity, and its predominantly downwind nature, and notwithstanding the magnitude of point source emissions, the department recommends Pike County not be included in the St. Louis 8-hour ozone nonattainment boundary.

Warren and Lincoln counties are part of the MSA and their population is growing at a significant rate (greater than 40 percent from 1990-2000). However, the total populations of Warren County and Lincoln County are less than 25,000 and less than 40,000 respectively and the amount of precursor emissions in these counties is smaller than the majority of the other surrounding and MSA counties. These two counties do not exhibit a pattern of urbanization and have low emission density. The commuter linkage to the 1-hour area is fairly strong (approximately 50 percent for both counties), but the total number of employed residents is small (18,386 – Lincoln and 11,938 Warren). In addition, these counties are downwind of the core 1-hour nonattainment area under the predominant wind direction. Therefore, the recommendation is to exclude Warren and Lincoln counties from the St. Louis 8-hour nonattainment area.

St. Francois County is not part of the MSA and does not have a strong commuter linkage to the metropolitan area. The population, urbanization, and VMT of St. Francois County are reasonably supportive for inclusion in the 8-hour boundary. The amount of total emissions from St. Francois County is substantially smaller than most of the current 1-hour nonattainment area, but slightly higher than the remaining Missouri counties (8.99 TPD VOC and 8.00 TPD NO_x). This translates to 2.5% of the VOC emissions and 1.3% of the NO_x emissions in the maintenance area from sources within the county. While St. Francois County is upwind under predominant winds for the St. Louis area, the amount of emissions and connectivity to the metropolitan area is not indicative of frequent and significant contribution to elevated ozone concentrations in St. Louis. The remaining factors (population, traffic, urbanization) are all somewhat supportive of inclusion. The predominant factors for exclusion of St. Francois County are size of emissions with respect to the downwind area, lack of connectivity to St. Louis (less than 20% of employed residents work in the 1-hour maintenance area) and, therefore, the recommendation is to exclude St. Francois County from the St. Louis 8-hour nonattainment area.

Ste. Genevieve County is not part of the MSA and does not have a strong commuter linkage to the metropolitan area. In addition, the population, urbanization, and VMT are not supportive of inclusion within the 8-hour nonattainment area. However, Ste. Genevieve County has moderately high emission rates for NO_x and VOC, 15.7 and 4.5 tons per day (TPD), respectively, and potential point source emission growth that would increase these emission totals dramatically. (This “potential point source emission growth” is based on a pending application and an issued permit currently under appeal.) As a comparison tool, Franklin County has 55.4 TPD NO_x and 17.3 TPD VOC. Ste. Genevieve county is upwind under predominant winds for the St. Louis area, has monitored 8-hour ozone violations in the past, and has the potential for point source growth. With the understanding of the point source and growth information, the

current level of emissions, small population, and lack of urbanization lead to the recommendation that Ste. Genevieve County be excluded from the St. Louis 8-hour nonattainment area. However, if the additional point source growth occurs as expected, the rationale for inclusion of Ste. Genevieve County increases dramatically due to downwind ozone impacts from this sizable emission growth. There is a pending Prevention of Significant Deterioration (PSD) permit application for a very large NO_x source in Ste. Genevieve County (~20 TPD) and a previously issued PSD permit to another existing source (~5 TPD). While the PSD's Best Available Control Technology (BACT) evaluation is a major emission control component for permitting new sources, LAER and emission offsets permitting program for nonattainment area can achieve substantially more emissions reduction and expeditiously mitigate any impact to nonattainment areas. Lowest Achievable Emission Rate (LAER) evaluation can result in the installation of add-on control that is rejected by the BACT evaluation since LAER does not consider cost of the control where BACT does. For this reason, future potential sources may be required to undergo stricter emission control evaluation such as LAER and emissions offsets in the event the PSD program is determined to be ineffective in mitigating impacts to the nonattainment area.

In summary, the proposed 8-hour ozone nonattainment boundary recommendations for Missouri are the same as the one-hour maintenance areas, plus the northern portion of Cass County within the Metropolitan Planning Organization (MPO) boundaries. This recommendation is based upon the 2000-2002 monitored ozone data and criteria contained in the EPA guidance for designation. In addition, the attached technical review supports the criteria in the aforementioned EPA guidance document. Although the recommendation for nonattainment area boundaries is smaller than the EPA presumptive boundary (the MSA), it is important to note that Missouri will evaluate control strategies on the surrounding MSA and other possible contributing counties in the 8-hour ozone State Implementation Plan. The department will consider implementing new control measures including the implementation of existing reasonable available control technology and New Source Review program requirements for industrial sources located outside the nonattainment boundaries if in the future, these counties are found to be contributing to the nonattainment area.

COMMENTS AND RESPONSES ON
8-HR OZONE STANDARD BOUNDARY RECOMMENDATION
AND
RECOMMENDATION FOR ADOPTION

On June 26, 2003, the Missouri Air Conservation Commission held a public hearing concerning the recommendation of the 8-hr attainment status boundary designation for the Missouri Portion of the St. Louis and Kansas City Areas. The following is a summary of comments received and the Missouri Department of Natural Resources' corresponding responses. Any changes to the Workgroup Summary and Technical Support documents are identified in the responses to the comments.

The Missouri Department of Natural Resources' Air Pollution Control Program recommends the commission adopt the Workgroup Summary and the Technical Support documents pertaining to the 8-hr ozone boundary designation as revised.

SUMMARY OF COMMENTS: The Missouri Department of Natural Resources' Air Pollution Control Program received comments from Representative Russ Carnahan (District 59), the Ozark Chapter of the Sierra Club, the Missouri Coalition for the Environment, St. Louis Regional Chamber and Growth Association (RCGA), the U.S. Environmental Protection Agency (EPA), Mid America Regional Council (MARC), Ste. Genevieve County Commission (on behalf of several Ste. Genevieve constituents), Ste. Genevieve small business owners, City of Ste. Genevieve, Ste. Genevieve County Office of Economic Development, a resident of St. Louis County, Ste. Genevieve County Commission's Environmental consultant -URS Corporation, and Booneslick Regional Planning Commission.

COMMENT: One of the commissioners asked if additional counties can be added in the future to the nonattainment area.

RESPONSE: The Clean Air Act allows an opportunity for states to make recommendations to EPA to redefine the nonattainment boundary. No revisions have been made as a result of this comment.

Due to the similarity in the following two (2) comments, one (1) response that addresses both comments can be found at the end of these two (2) comments.

COMMENT: Representative Carnahan commented in support of the recommendations of the boundary. He further stated that the focus and efforts should continue on the existing 1-hr boundary.

COMMENT: MARC commented in support of the 8-hr boundary recommendations.

RESPONSE: The department's Air Pollution Control Program appreciates this support of the recommendation. No revisions have been made as a result of these comments.

COMMENT: EPA commented that Missouri must present a clear demonstration that the proposed recommendation is reasonable. EPA suggested a discussion about the degree of

existing emission controls and identification of factors that influenced the designation decision and state why a particular decision was reached for a county.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program added additional language in the Workgroup Summary document to further strengthen the justification for the proposed boundary recommendation. While EPA guidance requires states to collect technical information on the eleven EPA established criteria, EPA guidance does not spell out a specific methodology for a state to use to make a recommendation. Despite the lack of a specific methodology, the technical document discussed all factors that influence the decision to exclude or include a county in the 8-hr boundary. Many of these clarifications are addressed throughout this document and are summarized in the Workgroup Summary. The Workgroup Summary includes a discussion on each of the criteria. For example, one of the factors that needed additional discussion was whether or not Reasonable Available Control Technology (RACT) could achieve additional emission reductions from existing point sources. In addition, the department's Air Pollution Control Program will submit the Ste. Genevieve County and Booneslick Regional Planning Commission officials' summary packages that were provided during the public hearing to EPA for review.

COMMENT: The Ste. Genevieve County citizens, City of Ste. Genevieve representatives, and Ste. Genevieve County Office of Economic Development expressed support for the recommendation that excluded Ste. Genevieve County from nonattainment boundary for the 8-hr standard. It was stated that Ste. Genevieve is a rural area and there are fewer emissions sources and low traffic counts.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program appreciates this support of the recommendation. Ste. Genevieve County should not be considered a nonattainment area, particularly when the collective evaluation of the EPA criteria do not support the inclusion of Ste. Genevieve County in the nonattainment boundary. As to the number of sources in Ste. Genevieve, the department's Air Pollution Control Program is aware of two existing major sources. The emissions from these sources are over 1,000 tons per year of NO_x. As a result of this comment additional language was added for clarification.

COMMENT: The Ste. Genevieve County Commission and their constituents support the exclusion of the Ste. Genevieve County from the 8-hr boundary designation. The Ste. Genevieve Commission requested a clarification of what constitutes a monitor violation.

RESPONSE: The department's Air Pollution Control Program appreciates this support of the recommendation. EPA methodology for determining a violation under Code of Federal Regulations and EPA Guidance is followed. When a concentration over an 8-hr period records 0.085 parts per million (ppm) and above, the area experiences an exceedance of the 8-hr standard. The arithmetic three-year average of the annual fourth highest concentration of 0.085 ppm or above constitutes a violation. It is conceivable that EPA may use 2003 data to determine if the Bonne Terre monitor located in Ste. Genevieve County violates the 8-hr standard. No revisions have been made as a result of this comment.

COMMENT: URS Corporation, on behalf of the Ste. Genevieve County Commission, commented regarding the language that suggests a re-evaluation of Ste. Genevieve County or inclusion to the 8-hr ozone nonattainment area boundary on the basis of potential future emissions growth. URS Corporation supported the removal of such language by stating that Prevention of Significant Deterioration (PSD) rules ensure that any major new source outside the nonattainment area will be well controlled and will not cause or contribute to a violation.

RESPONSE AND EXPLANATION OF CHANGE: This recommendation did not consider potential sources that are currently being reviewed by the department. The outcome of the permitting process is unknown at this point and it would be presumptuous for the department to consider this potential source in determining the boundary recommendation. One of the factors to consider would be the future implementation of nonattainment major review for the new sources. It is suggested that the current PSD program for these outside counties is sufficient to protect the nonattainment area from being impacted by large emission growth. While the PSD's Best Available Control Technology (BACT) evaluation is a major emission control component for permitting new sources in attainment areas, Lowest Achievable Emission Rate (LAER) and an emission offsets permitting program for nonattainment areas can achieve substantially greater emissions reductions and expeditiously mitigate any impact to nonattainment areas. LAER evaluation can result in the installation of add-on control that is rejected by the BACT process. LAER, unlike BACT, does not consider cost of the control in selecting control technologies. Therefore, the department's Air Pollution Control Program believes that LAER and emission offsets can protect nonattainment areas from large, upwind growth. Revisions have been made as a result of this comment to further clarify language regarding exclusion of Ste. Genevieve County from the 8-hr ozone nonattainment area boundary.

COMMENT: RCGA commented that the possibility of potential construction of major sources currently being permitted should not be considered as a reason for the county to be included in the 8-hr nonattainment area. These major sources employ BACT. Existing sources are subject to RACT.

RESPONSE: New emission growth from industrial sources outside the nonattainment area is not the only factor to be considered in determining the boundary designation. Level of emission controls, trends for industrial development, and/or emission contribution to the nonattainment area must be considered before including a county in the 8-hr boundary. BACT is not always the top control because a source having undergone a recent BACT evaluation is not likely to achieve additional emissions reductions under RACT since RACT is generally less stringent than BACT. LAER and emissions offset requirements may be appropriate for areas that tend to show industrial development and have a downwind ozone impact on nonattainment areas. One of the EPA criteria is expected growth. Our treatment of expected growth in Ste. Genevieve County is to ensure a comprehensive evaluation of all the relevant factors. No revisions have been made as a result of this comment.

COMMENT: RCGA commented that a decision to change the nonattainment boundary from a 1-hr maintenance boundary should be guided by the principle that any change should bring substantial emissions reductions and improve the ozone levels in the St. Louis region. For this reason, RCGA supports the boundary recommendation as proposed.

RESPONSE: The level of control of emissions sources is only one of the eleven factors that must be considered for boundary designation. The determination of emission reductions is done through the State Implementation Plan public process and should not be confused with the current designation process. The definition of a nonattainment area does not include the consideration of control opportunities, but does consider areas that cause or contribute to areas not attaining the standard. No revisions were made as a result of this comment.

COMMENT: RCGA suggested an evaluation of present new source review (NSR) requirements begin immediately for major new sources that would be located outside the nonattainment area but potentially have a significant impact on the nonattainment area.

RESPONSE: Missouri has been in discussion with EPA regarding potential ozone transport due to new sources that locate outside the nonattainment area. Thus, the only mechanism available to the department besides the current authority to deny permits that impact nonattainment areas is to designate those counties as nonattainment in order to promulgate more restrictive NSR programs such as LAER and emissions offsets. The department's Air Pollution Control Program supports designating these counties as nonattainment only if they are found to be contributing counties. The department's Air Pollution Control Program understands the need for evaluation of its present NSR rule for counties outside the nonattainment area and welcomes any suggestions that address these sources taking in consideration the requirements of 643.055, RSMo. No revisions have been made as a result of this comment.

COMMENT: The Missouri Coalition for the Environment agreed with the EPA and their request to see more clarity and consistency in the report in regard to the application of EPA established criteria so that the process is more understandable. The Coalition stated that protection of health should have been the explicit driving force for the establishment of an 8-hr boundary designation. The Coalition stated that since no evidence was presented to establish any relationship between the proposed recommendation and the achievement for better health conditions for citizen of the region, the Coalition can not, at this time, assess the validity of the boundary recommendation.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program followed EPA guidance in determining the boundary designation. In addition, input from all stakeholders during the public information meetings was considered. Per EPA's suggestion, the department's Air Pollution Control Program revised the Workgroup Summary to include a discussion that summarizes factors that influence the removal or inclusion of counties within and outside the presumptive boundary. This is done to provide further clarification on the factors that influenced the boundary recommendation decision.

COMMENT: A resident of St. Louis County commented that the Missouri Air Conservation Commission should consider including additional counties in the nonattainment area. He also suggested that additional monitoring stations be located in St. Louis City and County.

RESPONSE: The department's Air Pollution Control Program summarized its findings of the boundary determination in the Workgroup Summary. The addition of monitors in the area is a separate process. The department's Air Pollution Control Program conducts a periodic review of the monitoring network. No revisions have been made as a result of this comment.

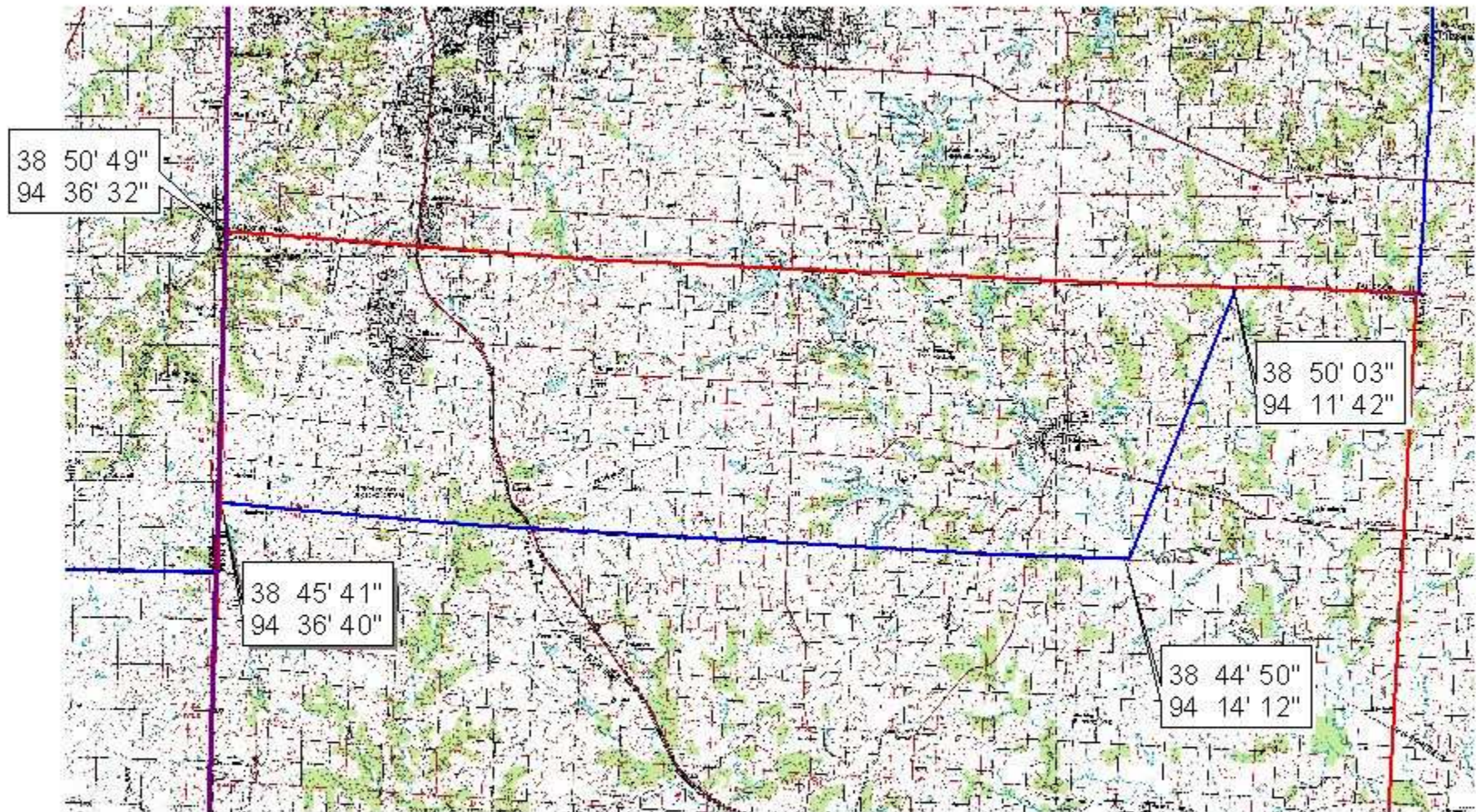
COMMENT: The Sierra Club stated that the boundary should be modified to include Ste. Genevieve or the northern portion of Ste. Genevieve County due to substantial growth of NOx emissions in Ste. Genevieve County.

RESPONSE AND EXPLANATION OF CHANGE: The department's Air Pollution Control Program believes that criteria such as current emissions, population, urbanization and connectivity to the St. Louis area supports the exclusion of Ste. Genevieve County from the 8-hour nonattainment boundary. However, potential emission increases associated with pending permit applications in Ste. Genevieve County could support their inclusion in the future. Until these increases are realized and quantified they can only be evaluated as expected. It is important to note that this is only one of the eleven criteria that must be analyzed and when all eleven criteria are looked at collectively, the decision to exclude Ste. Genevieve County is appropriate. A revision to the Workgroup Summary was made for further clarification.

COMMENT: Booneslick Regional Planning Commission concurred with the recommendation which excludes Lincoln, Montgomery, and Warren Counties in the 8-hr ozone boundary. They stated that EPA's eleven factors do not support the inclusion of these counties in the boundary designation.

RESPONSE: The department's Air pollution Control Program appreciates this support of the recommendation that the eleven criteria do not support the inclusion of Lincoln, Warren and Montgomery Counties. No revisions have been made as a result of this comment.

Cass County MPO Area



-  County Boundary
-  State Line
-  MPO Boundary

