Department of Environmental Protection

Jeb Bush
Governor

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

David B. Struhs
Secretary

June 29, 2000

Mr. John H. Hankinson, Jr.
Regional Administrator
U.S. Environmental Protection
Agency – Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Dear Mr. Hankinson:

I am writing on behalf of Governor Jeb Bush in response to your letter of April 28 requesting that the Governor recommend the designation of all areas of Florida as either "unclassifiable/attainment" or "nonattainment" with respect to the new 8-hour ozone National Ambient Air Quality Standard.

Three years of data are needed to determine compliance with the ozone standard. Based on current data for 1997-1999, violations of the standard have occurred in two Florida counties, Escambia and Hillsborough. According to the guidance you provided, the Environmental Protection Agency (EPA) will designate the metropolitan statistical area (MSA) in which each of these counties is located as a nonattainment area, absent a recommendation from the state to the contrary. The Pensacola MSA consists of Escambia and Santa Rosa counties. The Tampa-St. Petersburg-Clearwater MSA consists of Hillsborough, Pinellas, Pasco, and Hernando counties.

With regard to Escambia County, I concur with designation of the Pensacola MSA, consisting of Escambia and Santa Rosa counties, as the nonattainment area. The two counties are closely linked with respect to the sources of industrial and transportation-related emissions in the area. Furthermore, Escambia County has recorded ozone levels in excess of the new 8-hour standard throughout the 1990's, suggesting a persistent problem that should appropriately be addressed through the air quality planning process engendered by the nonattainment designation.

Unlike the Pensacola area, the Tampa Bay area has not had a recurring ozone problem over the past decade. A borderline violation (85 parts per billion) occurred in Pinellas County during the 1988-1990 period; however, since that time (except for 1998), all ozone monitoring sites in the area have registered compliance with the new 8-hour standard. Unusually high ozone levels occurred in the Tampa Bay area and throughout most of the state between May 12 and May 25, 1998. On several days during that period, satellite photographs clearly show the smoke plume from massive wildfires in Central America over Florida. On other days, the plume is not visible on the satellite photographs but may still have been affecting air pollution levels in the state. The department requested that ozone data for this 14-day period be excluded from

attainment/nonattainment analysis. The EPA agreed to exclude four days of data on which the smoke plume was visible. If the entire episode had been excluded, as the department had requested, Hillsborough County would not have a violation of the ozone standard for the 1997-1999 period. Therefore, I hereby request that the EPA, in consultation with the department, further review this unusual episode, along with other ozone data for recent years, before making any final decision to designate the Tampa-St. Petersburg-Clearwater MSA or any part of it as a nonattainment area.

Given the questionable nature of the Hillsborough County violation, I recommend that the EPA initially designate all counties in Tampa Bay area as unclassifiable/attainment with the understanding that, by the end of next year, the state will recommend a specific nonattainment area designation if ozone data for 1999-2001 show a violation of the 8-hour standard. If this is not possible, I recommend that only Hillsborough and Pinellas counties be designated as a nonattainment area at this time and request that the EPA automatically redesignate the counties as unclassifiable/attainment if either of the following occurs:

1. The 1997-1999 violation is removed based on further review of the May 1998 data that may have been affected by the wildfires in Central America; or
2. Ozone data for 1999-2001 show no violation of the standard.

Enclosed is the state's technical support for these recommendations.

Furthermore, the recent agreements worked out with Tampa Electric Company by our respective agencies, in combination with the Tier 2 motor vehicle emission standards and low-sulfur gasoline, will push ozone levels even lower. Therefore, I believe that making the area endure the long-term consequences of being designated a nonattainment area, when little remains to be accomplished by such designation, is unwise and unnecessary

Finally, as requested, I recommend that the entire rest of Florida be designated as unclassifiable/attainment with respect to the 8-hour ozone standard.

Sincerely,

David B. Struhs
Secretary

Enclosure

DBS/lag

State of Florida

Technical Support for Recommended Tampa Bay Area Ozone Designations
June 2000

The State of Florida recommends that the Environmental Protection Agency (EPA) initially designate all counties in Tampa Bay area as unclassifiable/attainment with respect to the 8-hour ozone standard, with the understanding that, by the end of 2001, the state will recommend a specific nonattainment area designation if data for 1999-2001 show a violation of the 8-hour ozone standard. Alternatively, the state recommends that only Hillsborough and Pinellas counties be designated as a nonattainment area at this time and requests that the EPA automatically redesignate the counties as unclassifiable/attainment if either of the following occurs:

1. The 1997-1999 violation is removed based on further review of the May 1998 data that may have been affected by the wildfires in Central America; or

2. Ozone data for 1999-2001 show no violation of the standard.

In addition, the state is requesting that EPA, in consultation with the Department of Environmental Protection (DEP), further review the May 1998 data before making any final decision to designate the Tampa-St. Petersburg-Clearwater metropolitan statistical area (MSA) or any part of it as a nonattainment area for ozone.

Support for Designating all Counties as Unclassifiable/Attainment

The technical basis for this recommendation is that, but for the statewide ozone episode during May of 1998, there would be no violation of the 8-hour ozone standard in Hillsborough County or anywhere else in the Tampa Bay area throughout the 1990's. If the 1998 episode is, in fact, an anomalous occurrence, it is expected that ozone data for 1999-2001 will show compliance with the 8-hour standard. By waiting until the 1999-2001 data are available, both the EPA and the state will avoid the complication of designating an area nonattainment unnecessarily.

If a violation of the 8-hour ozone standard occurs in the Tampa Bay area during the 1999-2001 period, the state will make a recommendation by the end of 2001 as to which counties should be designated as part of the nonattainment area. This will allow the EPA to promulgate a nonattainment designation by mid-2002, only one year later than the expected effective date of any nonattainment designations made by the EPA this year.

If a nonattainment area is designated based on the 1999-2001 data, Florida will submit the required state implementation plan revision to the EPA on the same schedule that would be required if the nonattainment designation had been made based on the 1997-1999 data. The state is able to make this commitment because the DEP has already secured a contractor and begun work on the Peninsular Florida Ozone Study (PFOS). The purpose of this study is to complete, by the end of 2001, an EPA-approvable modeling demonstration that could be used in support of any state implementation plan revision that might be required.

Support for Designating only Hillsborough and Pinellas Counties as a Nonattainment Area

The primary technical basis for this recommendation is the same as for the recommendation to initially designate all counties in the Tampa Bay area as unclassifiable/attainment; namely, that any ozone nonattainment area designation may prove unnecessary once the May 1998 data are reconsidered or once the data for 1999-2001 are collected. Recognizing, however, that the EPA may determine that a nonattainment designation must be made at this time, Florida is recommending that the nonattainment area be no larger than the current maintenance area for the 1-hour ozone standard. In addition, the state is requesting that the EPA automatically redesignate the two counties to unclassifiable/attainment if either (1) the 1997-1999 violation is removed based on further review of the May 1998 data or (2) the ozone data for 1999-2001 show no violation of the standard. In this way, the state and the EPA will avoid the complication of preparing and processing a formal redesignation request for an area that may turn out to have been designated nonattainment unnecessarily.

If a violation of the 8-hour ozone standard occurs in the Tampa Bay area during the 1999-2001 period, Florida will proceed to submit the required state implementation plan revision on whatever schedule applies. As stated above, the Peninsular Florida Ozone Study is scheduled to be completed by the end of 2001. If the state determines that a larger nonattainment area is needed based on the results of this study, it will make such recommendation to the EPA at that time.

Although the state is proposing that a final decision on the designation of a Tampa Bay nonattainment area await (1) further review of the May 1998 data, (2) evaluation of the ozone monitoring results for 1999-2001, and (3) completion of the Peninsular Florida Ozone Study, the DEP understands that Florida's recommendation to designate only Hillsborough and Pinellas counties at this time must be justified on the basis of its own merits. Since the recommended area is smaller than the metropolitan statistical area (MSA), which includes the additional counties of Pasco and Hernando, the DEP must provide adequate justification for the exclusion of these two counties.

The EPA, in guidance to the states, lists 11 factors that should be considered when a state proposes to designate as nonattainment an area that is larger or smaller than the MSA or consolidated metropolitan statistical area (CMSA). These factors are as follows:

1. Emissions and air quality in adjacent areas (including adjacent C/MSAs)
2. Population density and degree of urbanization including commercial development (significant difference from surrounding areas).
3. Monitoring data representing ozone concentrations in local areas and larger areas (urban or regional scale).
4. Location of emission sources (emission sources and nearby receptors should generally be included in the same nonattainment area).
5. Traffic and commuting patterns.

6. Expected growth (including extent, pattern and rate of growth).
7. Meteorology (weather/transport patterns).
8. Geography/topography (mountain ranges or other air basin boundaries).
9. Jurisdictional boundaries (e.g., counties, air districts, existing 1-hour nonattainment areas, Reservations, etc.).
10. Level of control of emission sources.
11. Regional emission reductions (e.g., NOx SIP call or other enforceable regional strategies).

These factors are addressed separately below for Hernando and Pasco counties. The numbered paragraphs that follow correspond to the above-numbered EPA factors.

Factors Related to the Proposed Exclusion of Hernando County

1. Anthropogenic emissions of nitrogen oxides (NOx) and volatile organic compounds (VOC) in Hernando County represent less than 6 percent of the MSA totals. The area is generally rural, and no ozone monitors are located in the county. The nearest ozone monitor is located at the southern end of Pasco County near Pinellas County. Based on the lower emissions in the county and the greater distance of the county from the urban core areas of the MSA, the DEP believes that the ozone levels in Hernando County would be less than those recorded in the more heavily populated Pasco County to the south. The current 1997-1999 ozone design value at the Pasco County monitor is 0.082 parts per million (ppm).
2. The population density in Hernando County is the least of the four-county MSA at 211.4 persons per square mile. The population densities of Hillsborough and Pinellas counties, the two dominate counties in the MSA, are 793.6 and 3,039.9, respectively.
3. Ozone monitoring data in the region and throughout Florida yield design values at or above 0.07 ppm, including rural areas. The DEP would expect Hernando County to have ozone levels consistent with these data. In general, 8-hour average ozone levels in Florida are greatest near the urban areas but with a distinct north-south gradient--the higher levels occurring in the northern part of the state. As has been noted, the existing 1997-1999 ozone design values are significantly influenced by the single episode in May of 1998. During that period, large wildfires in Central America and Mexico affected ozone concentrations throughout the Southeast, including Florida. The DEP requested that these data be flagged and excluded from nonattainment determination on the basis of the EPA natural events policy. The EPA approved the exclusion of some of these data, but not all that the DEP believe are applicable. The DEP continues to assert that these data should not be used for nonattainment determination. The exclusion of these data would significantly change the apparent scale of the ozone problem in the Tampa Bay area. In fact, the area would not be in violation of the 8-hour ozone standard if all of the DEP's requested exclusions had been approved.
4. Hernando County does not have many major sources of NOx or VOC. Two cement manufacturing facilities are located in the county, but these sources are the farthest

removed in the MSA from the violating monitors in Hillsborough County. The major roadways, Interstate 75 and US 19, run north-south in the eastern and western sides of the county, respectively. All of these sources are on the order of 50 miles from the controlling ozone monitor in Hillsborough County.

5. Approximately 6 percent of the vehicle miles traveled (VMT) in the MSA are attributed to Hernando County. Less than 5 percent of the working population in Hernando County work in the violation county of Hillsborough. The county is not considered a bedroom community to Hillsborough County due to the distance of the commute.

6. The growth rate in Hernando County is the highest in the MSA at 25.8 percent from 1990 to 1998. Its population, however, is less than 6 percent of the MSA total.

7. A detailed analysis of the meteorology associated with high ozone levels in the Tampa Bay area has not been completed. Such an analysis is usually completed in association with a photochemical modeling study; however, the Peninsular Florida Ozone Study is just beginning. Preliminary meteorological studies have indicated a strong influence of the land/sea breeze circulation in high ozone events, usually associated with a generally weak synoptic flow. Speculation is that the recirculation of Tampa Bay area emissions within the land/sea breeze results in these emissions remaining in the area in concentrations sufficient to form elevated ozone. The highest levels of ozone tend to slosh in the direction of weak synoptic flow from the center of the Tampa urban area. Because the Hernando County emissions are relatively small and are occurring at the farthest distance from the Tampa urban area, their influence on the higher ozone levels occurring in Hillsborough County is believed to be minimal.

8. The significant geographical feature associated with high ozone in the Tampa Bay area is the coastline. Along this coastline, the recirculation effects associated with the land/sea breeze occur. Hernando County is a coastal county, and emissions from this county could be recirculated and transported to the south. However, the county is quite far removed from the locations where ozone violations have been recorded, and its emissions are relatively small due to the largely rural nature of the county. No other special geographical or topographical features are distinctive in the county.

9. Hernando County is within the Tampa-St. Petersburg-Clearwater MSA and is, thus, presumptively included in the nonattainment area.

10. Proposed new or modified major sources of VOC and NOx are subject to the prevention of significant deterioration (PSD) permitting requirements. The largest existing sources of NOx in the county, two cement manufacturing facilities, have undergone PSD review, including best available control technology, for NOx. Minor-source VOC and NOx reasonable available control technology (RACT) rules do not apply in Hernando County; however, the number of potentially affected sources in the county is small. Overall, the potential for significant VOC and NOx reductions in Hernando County is minimal.

11. The regional emission reductions to be implemented by the NOx SIP call are not expected to greatly impact the Tampa Bay area. Florida has not implemented any statewide strategies that would affect the Tampa Bay area ozone levels, but the recent settlement with Tampa Electric Company (TECO) involving two coal-fired power plants in Hillsborough County is expected to have significant effect on ozone levels in the area.

Federal emission reduction programs such as the Tier 2 motor vehicle emission standards and low sulfur gasoline requirements will be applicable to all areas, including Hernando County, and are expected to significantly reduce ozone levels in the Tampa Bay area.

Analysis of Proposed Hernando County Exclusion

The DEP concludes from the available data, and consideration of the 11 points above, that Hernando County should not be considered part of the Tampa Bay nonattainment area, even though it is part of the MSA. In short, Hernando County simply has too few emissions, and there is not a significant amount of commuting to the Hillsborough County area of violation. Also, the patterns of high ozone events tend to indicate a more localized contribution to the Hillsborough County violations, while Hernando County emissions sources are on the order of 50 miles away. The county is generally rural in nature, and although significant growth is taking place, the county's population and emissions are still relatively small compared to Hillsborough and Pinellas counties. The department does not believe that the county is large enough or near enough to the area of violation to warrant application of the management tools that come with being designated a nonattainment area; namely, nonattainment new source review and conformity requirements.

Factors Related to the Proposed Exclusion of Pasco County

1. The greatest emissions of ozone precursors within the MSA are from Hillsborough and Pinellas counties, located to the south of Pasco County. Pasco County currently emits approximately 9 percent of the NOx and 14 percent of the anthropogenic VOC within the four-county MSA. Emissions of NOx in Hillsborough County (and, in fact, the entire MSA) are dominated by the TECO coal-fired power plants located in the central and southern part of Hillsborough County. Under agreements with the EPA and the DEP, these power plants will be reducing emissions of NOx by approximately 30,000 tons per year by 2004, with additional significant reductions occurring out to 2010. Emissions of VOC and NOx from the mobile source sector are expected to decrease in all counties as a result of the federal Tier 2 motor vehicle emission standards and low-sulfur fuel requirements beginning in 2004. Ozone levels in the adjacent counties of Hillsborough and Pinellas counties are slightly higher than those monitored in Pasco County, with Hillsborough County being marginally in violation of the 8-hour ozone standard. The current 1997-1999 ozone design value for Hillsborough County is 0.087 ppm. As discussed previously, it is of some importance to note that Hillsborough County, and the whole of the Tampa Bay area, would be in compliance with the 8-hour ozone standard but for the single episode in May of 1998 that may have been affected by the Central America wildfires.

2. Pasco County is a mix of rural lands and urban development. Most of the urbanized area is located along Highway 19 on the Gulf coast. Only two small cities, Dade City and Zephyrhills are located on the east side of the county. There are no large centralized cities. The population density of the county is 377 persons per square mile. This value compares to 794 and 3,040 persons per square mile for Hillsborough and Pinellas counties, respectively. The population of the county is 325,824, the 13th largest county in the state.

3. There is one ozone monitor in Pasco County. It is located in the extreme southwest part of the county near the Pinellas County line. Ozone concentrations at this site are in compliance with the 8-hour standard, having a 1997-1999 design value of 0.082 ppm. Historically, the single monitor in the county has been in compliance with the 8-hour standard since its inception in 1990.

4. Emissions of ozone precursors associated with mobile sources are located along the major roadway segments and population centers. These include the US 19 corridor in the western part of the county that leads to Pinellas County, the I-75 corridor and the US 41 corridor in the central part of the county that leads to Hillsborough County, and the US 301 corridor in the eastern part of the county that also leads to Hillsborough County. Only two major stationary sources of NOx are located in the county, the Florida Power Corporation Anclote power plant and the Pasco County Resource Recovery Facility. Most emissions in Pasco County are located 25 to 40 miles from the monitors in violation of the standard in Hillsborough County.

5. The major traffic corridors in Pasco County move traffic in a north-south direction in association with the roadways listed above. Approximately 17 percent of the working population in Pasco County commute to Hillsborough County to work. Another 15 percent commute to Pinellas County. The number of daily vehicle miles traveled in the county is approximately 6,250,000. This is approximately 13 percent of the MSA total.

6. The population increased in Pasco County by 15.9 percent between 1990 and 1998. This growth is expected to continue in the county.

7. A detailed analysis of the meteorology associated with high ozone levels in the Tampa Bay area has not been completed. Such an analysis is usually completed in association with a photochemical modeling study; however, the Peninsular Florida Ozone Study is just beginning. Preliminary meteorological studies have indicated a strong influence of the land/sea breeze circulation in high ozone events, usually associated with a generally weak synoptic flow. Speculation is that the recirculation of Tampa Bay area emissions within the land/sea breeze results in these emissions remaining in the area in concentrations sufficient to form elevated ozone. The highest levels of ozone tend to slosh in the direction of weak synoptic flow from the center of the Tampa urban area.

8. The significant geographical feature associated with high ozone in the Tampa Bay area is the coastline. Along this coastline, the recirculation effects associated with the land/sea breeze occur. Pasco County is a coastal county, and emissions from this county could be recirculated and transported to the south. No other special geographical or topographical features are distinctive in the county.

9. Pasco County is within the Tampa-St. Petersburg-Clearwater MSA and is, thus, presumptively included in the nonattainment area.

10. Proposed new or modified major sources of VOC and NOx are subject to the PSD permitting requirements. Minor-source VOC and NOx RACT rules do not apply in Pasco County, however, the DEP has authority to propose the adoption of such rules in the county if justified by the modeling, even if the county is not designated as part of the nonattainment area. The largest single source of NOx is the Florida Power Corporation Anclote power plant. Modest reductions of NOx could potentially be obtained from this

facility; again, whether the area is designated nonattainment or not. The other major NOx source, the resource recovery facility, has already applied best available controls, and is not a particularly large source of emissions.

11. The regional emission reductions to be implemented by the NOx SIP call are not expected to greatly impact the Tampa Bay area. Florida has not implemented any statewide strategies that would affect the Tampa Bay area ozone levels, but the recent settlement with TECO involving two coal-fired power plants in Hillsborough County is expected to have significant effect on ozone levels in the area. Federal emission reduction programs such as the Tier 2 motor vehicle emission standards and low sulfur gasoline requirements will be applicable to all areas, including Pasco County, and are expected to significantly reduce ozone levels in the Tampa Bay area.

Analysis of Proposed Pasco County Exclusion

An argument could be made that Pasco County should be included in the Tampa Bay nonattainment area based on the information contained in answering the EPA's 11 considerations. However, the DEP believes that other considerations, not addressed above, strongly argue that Pasco County should not be included in the nonattainment area. These considerations revolve around the issue of how being designated a nonattainment area, as a management tool, would result in improved air quality in the Tampa Bay area.

The DEP does not believe that designating Pasco County as a nonattainment area provides for any significant air quality improvements in the area that would not, or could not, otherwise be achieved. Large decreases in emissions of VOC and NOx are expected in the next five years as a result of current requirements; namely, the TECO NOx reductions, Tier 2 motor vehicle emission standards, and low sulfur gasoline. Beyond these, there is very little additional reduction that could be achieved in Pasco County. If, however, further reductions in stationary-source emissions are determined to be necessary (e.g., RACT on major or minor sources), the DEP has authority to seek such reductions through the state rulemaking process, whether or not the county is designated as part of the nonattainment area.

The DEP has just begun the Peninsular Florida Ozone Study, a state-of-the-art photochemical modeling study. The entire Tampa Bay area, including Pasco County, will be considered in the modeling. If this study indicates that currently required emission reduction strategies are insufficient to bring the area into attainment, then additional strategies would be considered, including emission reductions in Pasco County. The DEP will be considering the whole Tampa Bay area, and beyond, in developing any additional strategies that might be needed, regardless of where the nonattainment boundaries are drawn.

The required federal programs in designated nonattainment areas, new source review and transportation conformity, do not significantly reduce emissions of ozone precursors. The new source review program limits industrial growth during the period of nonattainment but reverts to the PSD program after redesignation. Thus, it has no long-term effect on emissions growth. With continuing improvements in motor vehicle emissions technology, the DEP has seen transportation-related emissions decline, even as vehicle-miles-traveled have increased--a trend

that is expected to continue into the foreseeable future. As a result, the transportation conformity process does not function to drive emissions further down.

Finally, the Tampa Bay area is marginally in violation of the 8-hour ozone standard. If not for the single episode in May of 1998, the Tampa Bay area would be in compliance with the standard. In fact, the area has registered compliance with the standard throughout the 1990's. The state is requesting that EPA, in consultation with the DEP, further review the May 1998 data before making any final decision to designate the Tampa-St. Petersburg-Clearwater MSA or any part of it as a nonattainment area for ozone. The DEP maintains that the preponderance of evidence shows that ozone levels were affected on all days of the episode and, thus, the data are not reflective of normal high ozone days.