

Texas Commission on Environmental Quality

INTEROFFICE MEMORANDUM

To: Commissioners **Date:** October 3, 2007

Thru: LaDonna Castañuela, Chief Clerk
Glenn Shankle, Executive Director

From: David C. Schanbacher, P.E., Chief Engineer *DCS*

Subject: Executive Summary Memo
24-hour PM_{2.5} NAAQS nonattainment area boundary determination recommendations

Introduction and reason(s) for these recommendations:

On December 18, 2006, the EPA revised the 24-hour PM_{2.5} National Ambient Air Quality Standard (NAAQS) for fine particle matter of 2.5 microns and less (PM_{2.5}) from 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to $35\mu\text{g}/\text{m}^3$. The revised standard will provide increased protection of public health and welfare. Section 107(d)(1)(A) of the Federal Clean Air Act (FCAA) requires the governor of each state to submit to the EPA a recommendation regarding attainment, nonattainment, or unclassifiable statistical areas according to the new or revised standard. The deadline for submitting recommended designations under the revised 24-hour PM_{2.5} standard to the EPA is December 18, 2007. The EPA recommends that states identify violating areas using the most recent three years of air quality data, preferably calendar years 2004 through 2006 data, stored in the EPA Air Quality System (AQS). The PM_{2.5} violations are identified using data from the Federal Reference Method and the Federal Equivalent Method monitors that are sited and operated in accordance with 40 Code of Federal Regulations (CFR) Part 58. Based on 2004 - 2006 monitoring data from EPA AQS, no monitors in Texas are violating the PM_{2.5} 24-hour standard. Under the existing $65\mu\text{g}/\text{m}^3$ 24-hour PM_{2.5} standard, the entire State of Texas is designated "attainment/unclassifiable."

Review and quality assurance of the 2004 through 2006 monitoring data is complete and information is shown in the attached table. One special-purpose microscale monitor in El Paso, the Sun Metro site, has measured PM_{2.5} levels higher than the 24-hour standard. In 2000, the agency established Sun Metro as a microscale site with a continuous PM_{2.5} monitor and a supplemental speciation sampler to analyze the impact of transborder transport into Texas across the Rio Grande River. However, the EPA has not included these data in the AQS at this time because the monitor is a microscale monitor. EPA has no firm rule or policy about including microscale sites in designation recommendations, hence the TCEQ staff recommends excluding the Sun Metro site from the nonattainment designation recommendation based on initial research and data analysis. The attached table explains that the EPA has not previously included Sun Metro as a monitor to be considered for the purposes of designation. The TCEQ staff agrees that the EPA has correctly concluded that special-purpose microscale sites, such as Sun Metro are not appropriate for comparison to the 24-hour PM_{2.5} standard.

All monitors in Texas with data eligible for comparison to the 24-hour PM_{2.5} standards meet the revised standard.

Although there is no requirement for a public hearing, staff recommends holding a Commissioners' Work Session to allow for public discussion. Staff also recommends that the designation recommendation and a

Re: 24-hour PM_{2.5} NAAQS nonattainment area boundary determination recommendations

brief summary of the comments go to the commissioners for approval outside the standard agenda process.

Is this SIP revision explicitly required by federal or state rule(s)? Yes. Section 107(d) of the FCAA requires states to submit recommendations for initial designations of nonattainment, attainment, or unclassifiable to the EPA not later than one year after the promulgation of a new or revised PM_{2.5} standard. If after a careful consideration of the recommendations, the EPA intends to promulgate a designation that deviates from the state recommendation, the EPA must notify the state at least 120 days prior to promulgating the modified designation and provide the state an opportunity to comment on the potential modification. The FCAA requires the EPA to complete the designation process within two years of the effective date of the standard unless the EPA finds that additional information is needed to make these decisions, with an option for a one-year extension if the EPA has insufficient information to promulgate designations.

Is this document in response to legislation? No, however, as noted above, the FCAA requires the EPA to review the NAAQS, and promulgate revised NAAQS if necessary. Additionally, an EPA memorandum from Meyers, Robert: *Area Designations for Revised 24-hour fine Particle National Ambient Air Quality Standard, June 8, 2007*, specifies the designation recommendation process.

Potential alternatives: If Texas does not provide designation recommendations, the EPA could potentially designate areas in Texas as nonattainment for the 24-hour PM_{2.5} standard and the agency will have to develop a SIP revision for PM_{2.5}.

What the PM_{2.5} document will do: The action would allow the TCEQ to submit to the governor the designation recommendation and supporting information, which should be submitted to the EPA as a part of its designation process.

What is the authority to submit this document?

The authority to propose and adopt the implementation plan and similar documents is derived from Texas Health and Safety Code, Texas Clean Air Act (TCAA), §382.002, which provides that the policy and purpose of the TCAA is to safeguard the state's air resources from pollution; TCAA, §382.011, which authorizes the commission to control the quality of the state's air; and §382.012, which authorizes the commission to prepare and develop a general, comprehensive plan for the control of the state's air.

Effect on the

- **Regulated community:** No impact.
- **Public:** No impact.
- **Agency programs:** If Texas does not provide designation recommendations, the EPA could potentially designate areas in Texas as nonattainment for the 24-hour PM_{2.5} standard and the agency will have to implement SIPs as appropriate.

Controversial issues: The Sun Metro monitor, which is violating the revised 24-hour PM_{2.5} standard, is a microscale monitor and is not included in the EPA's preliminary 2004 through 2006 Air Quality System. The EPA does not have a firm rule or policy about including microscale sites in designation recommendations. The TCEQ recommends excluding the Sun Metro site from the nonattainment designation recommendation because this monitor references a small geographic area and is not representative of the El Paso metropolitan area. Also, Sun Metro is not in a residential area. The closest

Re: 24-hour PM_{2.5} nonattainment area boundary determination recommendations

residential area is about one mile away. Another monitor as close as 1/2 mile away (University of Texas at El Paso site) shows compliance with the standard.

Legislative interest: None at this time.

Schedule and constraints:

- October 2007: Commissioners' Work Session to receive public comments.
- December 18, 2007, designation recommendation due to the EPA.

Stakeholder involvement:

Staff recommends that the commission allow public discussion at a work session in October 2007.

Executive Director's Recommendation:

Considering the 2004 through 2006 PM_{2.5} monitoring data, the executive director recommends that the commission approve a recommendation of attainment for the entire State of Texas for the PM_{2.5} 24-hour NAAQS and forward this recommendation for the governor to consider for submittal to the EPA by the December 18, 2007, deadline.

Attachments:

- Letter from Chairman Garcia to Governor Perry
- Letter from Governor Perry to the EPA, Region 6
- Designation recommendation
- Table showing PM_{2.5} 24-hour Design Values for 2004 - 2006

cc: Anne Rowland
Sonia Ralls
Kerri Rowland
David C. Schanbacher, P.E.

Electronic cc: Betsy Chapman
Ashley K. Wadick
Daniel Womack
Kerry Howard
Russ Kimble
Margie McAllister
Theresa Pella
Terry Salem
Joyce Spencer



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

JUN 20 2007

The Honorable Rick Perry
Governor of Texas
Austin, TX 78711-2428

Dear Governor Perry:

The U.S. Environmental Protection Agency (EPA) revised the national ambient air quality standards (NAAQS) for fine particle pollution on October 17, 2006, to provide increased protection of public health and welfare. The 24-hour standard for PM_{2.5} (particles less than or equal to 2.5 micrometers in diameter) was revised from 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 35 $\mu\text{g}/\text{m}^3$ based on a number of health studies showing that short-term exposure to PM_{2.5} is associated with increased mortality and a range of serious respiratory and cardiovascular effects. The new standard became effective on December 18, 2006.

Within one year of issuing a new or revised air quality standard, Section 107(d)(1)(A) of the Clean Air Act requires the Governor of each State to submit to EPA a list of all areas in the State, designating each as attainment, nonattainment, or unclassifiable according to the new or revised standard. Therefore, we ask that you provide such recommendations to EPA by December 18, 2007, regarding the boundaries for areas that are attaining or are not attaining the revised 24-hour PM_{2.5} standard.

Establishing area designations is a key step in the process of providing the health protection that the Clean Air Act mandates. Areas that are designated as not attaining the air quality standard will be required to adopt plans to reduce ambient concentrations of PM_{2.5}. Similar letters are being sent to Governors nationally to initiate this process to confirm the air quality status. Receipt of this letter does not imply that your State has a health-based issue with particulate matter.

The enclosed memorandum provides guidance to State and local air pollution control agencies and Tribes on the timeline and process for designating areas under the revised PM_{2.5} standard. We plan to announce our intended designations as early as possible, but no later than 120 days prior to issuing final designations. Following our proposal, States and Tribes will have the opportunity to comment on any modification EPA proposes to their recommended designations.

According to the Clean Air Act, we will issue final designations by December 18, 2008; however, this deadline may be extended up to one additional year if EPA determines that insufficient information is available to establish final designations. Our designations will be

based on the most current monitoring data available (e.g., for final designations in December 2008, 2005-2007 data would be used).

We look forward to working with you and your staff to develop area designations under the 24-hour PM_{2.5} standard in a timely manner. If you have any questions, please contact me, or your air quality staff may contact Mr. Carl Young, of my staff, at (214) 665-6645.

Sincerely yours,



Richard E. Greene
Regional Administrator

Enclosure

Identical Letter Sent To:

The Honorable Mike Beebe
Governor of Arkansas

The Honorable Kathleen Blanco
Governor of Louisiana

The Honorable Bill Richardson
Governor of New Mexico

The Honorable Brad Henry
Governor of Oklahoma

The Honorable Rick Perry
Governor of Texas

Date

The Honorable Rick Perry
Governor of Texas
Austin, TX 78711-2428

Dear Governor Perry:

The United States Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standard (NAAQS) for fine particulate matter of 2.5 microns or less (PM_{2.5}) from 65 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 35 $\mu\text{g}/\text{m}^3$ for the 24-hour standard on October 17, 2006. The EPA requested in a letter dated June 20, 2007, that the State of Texas submit to the EPA by December 18, 2007, a list of all areas in the state designating each as attainment, nonattainment, or unclassified according to the revised standard.

Based on review and analysis of 2004 through 2006 PM_{2.5} data, the commission recommends designating the entire State of Texas as attainment for this standard. Enclosed is a cover letter for your signature and the designation recommendation with supporting data to be submitted to the EPA by the December 18, 2007, deadline.

Thank you for your support and assistance in this matter. If I can be of any assistance, please contact me at (512) 239-5515.

Sincerely,

Buddy Garcia
Chairman

BG/IU/sy

Enclosures

Date

Richard E. Greene, Regional Administrator
U.S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Dear Mayor Greene:

Pursuant to the requirements in Section 107(d)(1)(A) of the Federal Clean Air Act and the June 20, 2007, letter from your office, enclosed is the recommendation for designation of areas in Texas with regard to the revised National Ambient Air Quality Standard (NAAQS) 24-hour fine particulate matter of 2.5 microns or less (also known as PM_{2.5}).

The Texas Commission on Environmental Quality (TCEQ) developed the enclosed recommendation and supporting data, considering currently available eligible monitoring data for all areas in Texas from the 2004 through 2006 period. I am pleased to report that all areas of Texas meet the new revised fine particulate matter NAAQS of 35 micrograms per cubic meter and my recommendation is that all counties in Texas be designated attainment for this standard.

If you have any questions, please feel free to contact Chairman Buddy Garcia, at (512) 239-5515.

Sincerely,

Rick Perry
Governor of Texas

RP/IU/sy

Enclosure

cc: Chairman Buddy Garcia, Texas Commission on Environmental Quality

State of Texas
Fine Particulate Matter (PM_{2.5}) 24-Hour Standard of 35µg/m³
Designation Recommendation
Attainment Counties

All Counties in Texas

Attainment

Texas PM_{2.5} 24-Hour Design Values for 2004-2006

Metropolitan Statistical Area	County	Site ID	Site Name	Indicated NAAQS Status	PM _{2.5} 24-Hour Design Value	Data Completeness #	Population Oriented †	Measurement Scale
Amarillo	Potter	483750005	Amarillo	a	19	Incomplete	yes	Urban
	Potter	483750320	Amarillo TAMU	a	15	Incomplete	yes	Urban
Austin-Round Rock	Travis	484530020	Audubon	a	20	Incomplete	yes	Neighborhood
Beaumont-Port Arthur	Orange	483611100	Mauriceville	a	32	*Incomplete		Regional
	Orange	483611001	West Orange	a	28	Incomplete	yes	Urban
	Jefferson	482450021	Memorial	a	27	Incomplete	yes	Neighborhood
	Jefferson	482450022	Hamshire	a	25	*Incomplete	yes	Neighborhood
Brownsville-Harlingen	Cameron	480612004	S Padre Is.	a	23	Incomplete		Regional
	Cameron	480612002	San Benito	a	21	*Incomplete	yes	Urban
Corpus Christi	Nueces	483550032	Huisache	Attainment	27	Complete	yes	Neighborhood
	Nueces	483550034	Dona Park	a	20	Incomplete	yes	Neighborhood
Dallas-Fort Worth-Arlington	Dallas	481130057	Boys Club	a	28	*Incomplete	yes	Neighborhood
	Dallas	481130050	Convention Ctr.	a	27	Incomplete	yes	
	Dallas	481130035	Coit	a	26	*Incomplete	yes	Neighborhood
	Kaufman	482570005	Kaufman	a	26	*Incomplete		Regional
	Dallas	481130069	Hinton	Attainment	25	Complete		Neighborhood
	Dallas	481133004	Lancaster	a	25	*Incomplete	yes	Neighborhood
	Ellis	481390015	Waterworks	a	25	*Incomplete		Regional
	Tarrant	484391002	Fort Worth NW	Attainment	25	Complete	yes	Neighborhood
	Tarrant	484391006	Haws	Attainment	25	Complete		Neighborhood
	Tarrant	484393006	Fort Worth HD	a	25	*Incomplete	yes	Urban
	Dallas	481130087	Executive Apt.	Attainment	24	Complete	yes	Neighborhood
	Ellis	481390016	Old FW Rd.	a	24	Incomplete		Microscale

Abbreviations:

PM_{2.5} - Particulate Matter 2.5 microns or less in size

ID - Identification number

NAAQS - National Ambient Air Quality Standard

a - meets NAAQS but incomplete data

X - not comparable to NAAQS because site is microscale and not population oriented and monitor is special purpose

* - site shut down in 2005 due to EPA decision to cut back funding

- to be complete, site must have 75% or higher data return in all 12 quarters over 3 years

† - sites representing significant population exposure

Exceptional event days were not excluded for design value calculations

Texas PM_{2.5} 24-Hour Design Values for 2004-2006

Metropolitan Statistical Area	County	Site ID	Site Name	Indicated NAAQS Status	PM _{2.5} 24-Hour Design Value	Data Completeness	Population Oriented	Measurement Scale
El Paso	El Paso	481410053	Sun Metro	X	40	Incomplete		Microscale
	El Paso	481410044	Chamizal	a	29	Incomplete		Neighborhood
	El Paso	481410037	UTEP	a	24	Incomplete	yes	Neighborhood
	El Paso	481410055	Ascarate Park	a	18	*Incomplete	yes	Neighborhood
Houston-Sugarland-Baytown	Harris	482011035	Clinton	Attainment	31	Complete		Neighborhood
	Harris	482011034	Houston East	a	29	*Incomplete	yes	Neighborhood
	Harris	482010026	Channelview	a	28	*Incomplete	yes	Neighborhood
	Harris	482010024	Aldine	a	27	Incomplete	yes	Neighborhood
	Montgomery	483390078	Conroe Apt.	a	27	*Incomplete		Regional
	Harris	482010058	Baytown	a	26	Incomplete		Middle
	Harris	482010055	Bayland Park	a	24	*Incomplete	yes	Neighborhood
Galveston	481670014	Galveston	a	23	*Incomplete	yes	Regional	
Longview	Gregg	481830001	Longview	a	29	*Incomplete	yes	Urban
Lubbock	Lubbock	483030001	Lubbock	a	22	*Incomplete	yes	Urban
McAllen-Edinburg-Mission	Hidalgo	482150043	Mission	Attainment	25	Complete	yes	Urban
	Hidalgo	482150042	Edinburg	a	24	*Incomplete	yes	Urban
Odessa	Ector	481350003	Odessa	Attainment	18	Complete	yes	Urban
Texarkana	Bowie	480370004	Texarkana	Attainment	30	Complete	yes	Urban
Not in MSA	Harrison	482030002	Karnack	a	26	Incomplete		Urban
	Kleberg	482730314	N Padre Is.	a	19	*Incomplete		Regional
	Brewster	480430101	Big Bend	a	15	Incomplete		Regional
	Brewster	480430002	Alpine	a	10	*Incomplete	yes	Regional
	Jeff Davis	482430004	McDonald Obs.	a	10	*Incomplete		Regional

Abbreviations:

PM_{2.5} - Particulate Matter 2.5 microns or less in size

ID - Identification number

NAAQS - National Ambient Air Quality Standard

a - meets NAAQS but incomplete data

X - not comparable to NAAQS because site is microscale and not population oriented and monitor is special purpose

* - site shut down in 2005 due to EPA decision to cut back funding

- to be complete, site must have 75% or higher data return in all 12 quarters over 3 years

† - sites representing large population exposure

Exceptional event days were not excluded for design value calculations