OEP
01-0400046

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CRAIG R. BENSON
Governor

February 15, 2004

Mr. Robert W. Varney
Regional Administrator
U.S. Environmental Protection Agency, Region I
One Congress Street, Suite 1100
Boston, MA 02114-2023

RE: Designation of Nonattainment Areas Under the Fine Particle (PM2.5) Standard

Dear Mr. Varney,

As required by the Clean Air Act and the Transportation Equity Act for the 21st Century, I hereby submit proposed area of New Hampshire which either do not currently attain the 24-hour and annual National Ambient Air Quality Standard (NAAQS) for ground level particles smaller than 2.5 microns in diameter (PM 2.5) or may exacerbate PM2.5 violations in downwind nonattainment areas.

The U.S. Environmental Protection Agency (EPA) proposed in its designation guidance that Consolidated Metropolitan Statistical Area (Camass) based on the 1990 census is to be used presumptively to establish PM2.5 nonattainment area boundaries. However, as I stated in my June 15, 2003 letter of designation for 8-hour ozone nonattainment areas, Camass are not an ideal surrogate as a presumptive nonattainment area boundary because such areas are defined by socio-economic patterns proximate to urban centers rather than by factors which determine air quality. Historically, the CMSA approach has had limited success in achieving attainment of the 1-hour ozone NAAQS in the eastern United States because while regional pollutants that include ozone and small particles easily traverse CMSA boundaries, legal responsibility for reducing emissions typically does not. New Hampshire strongly advocates using areas of violation and areas of influence as proposed by the Federal Advisory Committee Act for determining nonattainment areas. This approach is of particular interest due to the possibility that a single monitor may be in violation of the PM2.5 NAAQS in the downtown portion of Boston, Massachusetts, an area included in the same CMSA as southern New Hampshire. If this monitor is indeed in violation of the standard, it is strongly suspected by the Massachusetts Department of Environmental Protection that it is largely caused by road construction activities in the Interstate-93 "Big Dig" effort, an activity which is currently coming to conclusion. While the fate of this monitor's designation is an issue for the Commonwealth of Massachusetts and EPA to work out, my staff and I believe that New Hampshire's activities are unrelated to the problems this monitor represents.

It is also worthwhile to note that while no monitor within the State comes close to the PM2.5 NAAQS, there is very little variation of PM2.5 concentrations across New Hampshire. This fact along with accepted science applied to air pollution transport suggests that PM2.5 pollution concentrations in the State are largely driven by sources that lie outside of the New Hampshire, much as is the case for ozone. In fact, according to measurements collected in the Great Gulf area in the White Mountains, Lye Brook in Vermont and Acadia National Park in Maine, around 50 percent of the PM2.5 content on an annual basis in northern New England is composed of sulfate, a product mostly attributed to coal-burning power plants in upwind areas. During periods of the highest small particle concentrations, transported sulfate particles are usually responsible for driving increases in local PM2.5 concentrations and are also responsible for reusing visibilities throughout the state, including in the state's pristine areas of the White Mountains. The Canadian forest fires of July 2002 and periods of moderate concentrations of diesel and automotive soot from large urban areas to the south and west of the state may have also produced higher, but non-violating, levels of small particles.

I propose that the entire State of New Hampshire be designated as attainment for the 24-hour and annual PM2.5 NAAQS and to keep the New Hampshire attainment portion of the Boston CMSA separate from the Massachusetts attainment/nonattainment portion. With this designation, we agree to work with EPA, the Commonwealth of Massachusetts and other northeastern states to take the necessary steps to maintain PM2.5 attainment throughout the region.

Thank you for your consideration of my recommendations. Also please find attached New Hampshire's Proposed PM2.5 Nonattainment Area Boundaries Tables1, 2 and 3. If you have any questions regarding this determination, you can contact Michael P. Nolin, Commissioner of the Department of Environmental Services at (603) 271-3449.

Sincerely

Craig R. Benson
Governor

Cc: Michael P. Nolin, Commissioner of DES
Robert Scott, Air Resources Director DES

TABLE 1. Estimated 2000 – 2002 24-Hour $PM_{2.5}$ Design Values[1] by Monitor, in micrograms per cubic meter ($\mu g/m^3$)

Location	Monitor ID	2000 98th Percentile	2001 98th Percentile	2002 98th Percentile	2003 98th Percentile[2]	2000-2002 Design Value	2001-2003 Design Value[2]	$PM_{2.5}$ NAAQS
Berlin	330070014	20	30	30	*27*	26	*29*	65
Claremont	330190003	26	27	32	*29*	28	*29*	65
Concord	330130003	33	26	31	*32*	30	*29*	65
Haverhill	330090008	--	--	36	*25*	--	--	65
Keene	330050007	35	30	33	*30*	32	*31*	65
Laconia	330012004	--	38	29	*30*	--	*32*	65
Manchester	330110020	32[5]	31[5]	33	*38*	32	*34*	65
Nashua	330111007	21	28	35[3]	*37*[3]	28	*33*	65
Portsmouth	330150014	*27*[4]	28[4]	31	*36*	28	*31*	65

TABLE 2. Estimated 2000 – 2002 Annual $PM_{2.5}$ Design Values[1] by Monitor, in micrograms per cubic meter ($\mu g/m^3$)

Location	Monitor ID	2000 Annual	2001 Annual	2002 Annual	2003 Annual[2]	2000-2002 Design Value	2001-2003 Design Value[2]	$PM_{2.5}$ NAAQS
Berlin	330070014	9.6	10.6	8.8	*10.0*	9.6	*9.8*	15
Claremont	330190003	9.9	9.8	9.6	*10.2*	9.7	*9.9*	15
Concord	330130003	10.4	9.7	9.9	*9.4*	10.0	*9.7*	15
Haverhill	330090008	--	--	8.3	*7.9*	--	--	15
Keene	330050007	12.6	11.6	11.8	*10.7*	12.0	*11.4*	15
Laconia	330012004	--	10.6	7.2	*7.5*	--	*8.4*	15
Manchester	330110020	10.7[5]	11.3[5]	11.0	*10.7*	11.0	*11.0*	15
Nashua	330111007	10.3	10.8	10.7[3]	*9.8*[3]	10.6	*10.4*	15
Portsmouth	330150014	*9.9*[4]	11.8[4]	9.9	*9.8*	10.5	*10.5*	15

[1] Design values are estimates only because EPA guidelines require a 75% data collection completeness factor over the 3-year design value period that may not have been met due to initiation of the state's $PM_{2.5}$ monitoring network.

[2] Data for 2003 is presented for illustrative purposes due to being based on data for only the first ¾ of the year. Final data has not yet been delivered from the testing laboratory.

[3] 2003 and a portion of 2002 monitoring data for Nashua is from the Spit Brook monitor (330111010) due to a lack of data at the Nashua Main Street location.

[4] 2000 monitoring data for Portsmouth is from Vaughan Street monitor (330150009). Monitoring in Portsmouth has since been consolidated at Pierce Island (330150014).

[5] 2000 and first quarter monitoring data for Manchester is from North Commercial Street (330110019). Monitoring in Manchester has since been consolidated at Pearl Street (330110020).

TABLE 3. Proposed Designation of Areas of 24-Hour and Annual $PM_{2.5}$ NAAQS Nonattainment in New Hampshire

NEW HAMPSHIRE – $PM_{2.5}$ (24-HOUR AND ANNUAL STANDARDS)

Designated Area	Designation Type	Classification Type
New Hampshire:		
None	Nonattainment	--
All portions of all counties	Attainment	Attainment