DEPARTMENT OF

ENVIRONMENTAL CONSERVATION

Amendments to State Air Quality Control Plan, Volume II,

Section III.D.1.VI "Interstate Transport of Pollution"

Adopted

February 11th, 2011

This page serves as a placeholder for two-sided copying.

Amendments to State Air Quality Control Plan, Volume II, Section III.D. Particulate Matter Subpart D.1 Overview, a new section to be inserted after section D.1.V:

VI. PROVISIONS PROHIBITING REGIONAL TRANSPORT OF AIR POLLUTANTS

Pursuant to the requirements of the 1990 Clean Air Act (CAA) Amendments, Sections 110(a)(2)(D)(i) (I)&(II), Alaska's State Implementation Plan (SIP)must "contain adequate provision prohibiting …any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—

I. contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard; or

II. interfere with measures required to be included in the applicable implementation plan for any other State… to prevent significant deterioration of air quality or to protect visibility.

Alaska meets the requirements of CAA Section 110(a)(2)(D)(i)(I)&(II) as follows:

I.A. Alaska does not contribute to nonattainment in any other State with respect to the 2006 24-hour and annual PM-2.5 and 2008 8-hour ozone primary or secondary national ambient air quality standards (NAAQS). This statement is based on the following information:

- Alaska is not subject to the "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone" (Interstate Air Quality Rule); see 69 FR 4566, January 30, 2004;

- Anthropogenic emissions of most air pollutants in Alaska are relatively small compared to non-anthropogenic emissions (natural wildfires). Table 1, below, presents Alaska's total air pollutant emissions (tons/year) by source sector and pollutant for the calendar year 2002. The percentage of anthropogenic emissions, defined as emissions from all sectors except natural fires divided by total emissions, is also shown at the bottom of each column. As shown in Table 1, the predominant source of most air pollutants in Alaska is natural wildfires. Anthropogenic sources of PM-2.5 comprised only 6.6% of the total, statewide fine particulate emissions. With regards to PM-2.5 and ozone precursors, anthropogenic sources of NOx comprised 47.9% of the total, statewide NOx emissions; while anthropogenic sources of SOx comprised 29.5% of the total, statewide SOx emissions in 2002. Excluding natural wildfires, area sources are the dominant source of PM-2.5, PM-10 and hydrocarbons; while point sources are the dominant source of NOx, SOx and ammonia in Alaska.

Table 1. Alaska's 2002 Air Pollutant Emissions Inventory Summary

Source Sector	Annual Emissions (tons/year)						
	HC	**CO**	**NOx**	**PM_{10}**	**$PM_{2.5}$**	**SOx**	**NH_3**
Area, Excluding Wildfires	128,271	81,978	14,742	106,985	30,636	1,872	0
Non-Road	7,585	52,223	4,111	416	392	49	8
On-Road	7,173	80,400	7,077	204	158	324	307
Commercial Marine Vessels	356	2,880	11,258	663	643	4,979	5
Aviation (Aircraft & GSE)	1,566	21,440	3,265	699	667	335	6
Point	5,697	27,910	74,471	5,933	1,237	6,813	580
Wildfires, Anthropogenic	98	2,048	46	200	172	13	9
Wildfires, Natural	274,436	5,831,755	125,110	557,403	478,057	34,304	26,233
TOTAL - All Sources	**425,181**	**6,100,633**	**240,080**	**672,502**	**511,962**	**48,689**	**27,149**
Anthropogenic Fraction	**35.5%**	**4.4%**	**47.9%**	**17.1%**	**6.6%**	**29.5%**	**3.4%**

- Alaska's aggregate anthropogenic PM-2.5 and ozone emissions are minimal relative to national levels. There are an estimated 150 major permitted point sources with approximately 7,500 emission units in Alaska. National emissions inventory data indicate that facilities in Alaska make up approximately 0.1 percent of the total PM-2.5 emissions in the United States. Precursor emissions to PM-2.5 (e.g., sulfur dioxide and nitrogen oxides) and precursor emissions to ozone (e.g., volatile organic compounds and nitrogen oxides) make up approximately less than 0.2 percent of the United States' emissions of those pollutants; and

- The border of Southeast Alaska is separated from the border of the nearest nonattainment areas, located in Snohomish County and King County in Washington State, by over 500 nautical miles or 600 statute miles. The Yukon Territory and the Province of British Columbia, Canada lie between these nonattainment areas and the border of Alaska. The Municipality of Anchorage and Fairbanks North Star Borough have the highest emissions of regulated air pollutants and are located approximately 1,435 statute miles (1,247 nautical miles) and 2,244 statute miles (1,950 nautical miles) from Seattle, Washington, respectively;

- In Alaska, the regional, predominant low pressure wind patterns emanate from the Gulf of Alaska in the west and travel inland towards the east, circulating in a counterclockwise direction. These predominant low pressure wind patterns would not generally be expected to transport air pollutants from Alaska to points south in Washington State or the Pacific Northwest.

I.B. Alaska does not interfere with maintenance by any other State with respect to the 2006 24-hour and annual PM-2.5 and 2008 8-hour ozone primary or secondary national ambient air quality standards (NAAQS). This statement is based on the following information:

- Alaska is not subject to the "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone" see 69 FR 4566, January 30, 2004;

- Alaska's aggregate manmade PM-2.5 and ozone levels are minimal relative to national levels. There are an estimated 150 major permitted point sources with approximately 7,500 emission units in Alaska. National emissions inventory data indicate that facilities in Alaska make up approximately 0.1 percent of the total PM-2.5 emissions in the United States. Precursor emissions to PM-2.5 (e.g., sulfur dioxide and nitrogen oxides) and precursor emissions to ozone (e.g., volatile organic compounds and nitrogen oxides) make up approximately less than 0.2 percent of the United States' emissions of those pollutants; and

- The border of Southeast Alaska is separated from the border of the nearest nonattainment areas, located in Snohomish County and King County in Washington State, by over 500 nautical miles or 600 statute miles. The Yukon Territory and the Province of British Columbia, Canada lie between these nonattainment areas and the border of Alaska. The Municipality of Anchorage and Fairbanks North Star Borough have the highest emissions of regulated air pollutants and are located approximately 1,435 statute miles (1,247 nautical miles) and 2,244 statute miles (1,950 nautical miles) from Seattle, Washington, respectively;

- In Alaska, the regional, predominant low pressure wind patterns emanate from the Gulf of Alaska in the west and travel inland towards the east, circulating in a counterclockwise direction. These predominant low pressure wind patterns would not generally be expected to transport air pollutants from Alaska to points south in Washington State or the Pacific Northwest.

II.A. Alaska does not interfere with measures required to be included in the applicable implementation plan for any other State… to prevent significant deterioration of air quality. This statement is based on the following information:

- Alaska has a fully approved PSD/NSR program originally approved on February 16, 1995 (60 FR 8943), and most recently approved on August 14, 2007 (72 FR 45378). Alaska's approved program implements the 1997 and 2008 8-hour ozone NAAQS and relevant requirements of the Phase II ozone implementation rule as required in 69 FR 23951 (April 30, 2004) and 70 FR 71612 (November 29, 2005). For PM-2.5, Alaska's

PSD program is being implemented in accordance with EPA's interim guidance calling for the use of PM-10 as a surrogate for PM-2.5 for the purposes of PSD review.

- The border of Southeast Alaska is separated from the border of the nearest nonattainment areas, located in Snohomish County and King County in Washington State, by over 500 nautical miles or 600 statute miles. The Yukon Territory and the Province of British Columbia, Canada lie between these nonattainment areas and the border of Alaska. The Municipality of Anchorage and Fairbanks North Star Borough have the highest emissions of regulated air pollutants and are located approximately 1,435 statute miles (1,247 nautical miles) and 2,244 statute miles (1,950 nautical miles) from Seattle, Washington, respectively;

- In Alaska, the regional, predominant low pressure wind patterns emanate from the Gulf of Alaska in the west and travel inland towards the east, circulating in a counterclockwise direction. The predominant low pressure wind patterns would not generally be expected to transport air pollutants from Alaska to points south in Washington State or the Pacific Northwest.

II.B. Alaska does not interfere with measures required to be included in the applicable implementation plan for any other State… to protect visibility. This statement is based on the following information:

- Alaska submitted its Regional Haze SIP, in conjunction with this Interstate Transport SIP, to EPA for approval to meet the requirements of federal Regional Haze regulations found at 64 FR 35714 (July 1, 1999); and to meet the requirements of EPA's "Finding of Failure To Submit State Implementation Plans Required by the 1999 Regional Haze Rule" as published in 74 FR 2392 (January 15, 2009).

- The border of Southeast Alaska is separated from the border of the nearest nonattainment areas, located in Snohomish County and King County in Washington State, by over 500 nautical miles or 600 statute miles. The Yukon Territory and the Province of British Columbia, Canada lie between these nonattainment areas and the border of Alaska. The Municipality of Anchorage and Fairbanks North Star Borough have the highest emissions of regulated air pollutants and are located approximately 1,435 statute miles (1,247 nautical miles) and 2,244 statute miles (1,950 nautical miles) from Seattle, Washington, respectively;

- In Alaska, the regional, predominant low pressure wind patterns emanate from the Gulf of Alaska in the west and travel inland towards the east, circulating in a counterclockwise direction. The predominant low pressure wind patterns would not generally be expected to transport air pollutants from Alaska to points south in Washington State or the Pacific Northwest.