Department of Environmental Conservation

DIVISION OF AIR QUALITY Director's Office

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December 04, 2015

Janis Hastings Acting Director of Air, Waste, and Toxics U.S. Environmental Protection Agency, Region 10 1200 Sixth Avenue, Suite 900 Seattle, WA 98101

Subject: Summer 2013 Exceptional Event Waiver request for Fairbanks, Alaska

Dear Ms. Hastings:

This letter is to formally request U.S. EPA concurrence for seven exceptional events that occurred in Fairbanks during the summer of 2013. Fairbanks air quality during this timeframe was significantly impacted by smoke from extensive wildfires in the interior of Alaska. The Alaska Department of Environmental Conservation, Air Quality Division (ADEC) flagged seven days for the 24 hour PM_{2.5} concentrations measured at the two air monitoring sites in Fairbanks, the State Office Building (AQS ID 02-090-0010) and the NCore site (AQS ID 02-090-0034). Consistent with the requirements of 40 CFR 50.14, ADEC has placed exceptional event flags in AQS for the following dates, which were impacted by wildfire smoke: 6/27/2013, 6/30/2013, 7/6/2013, 7/15/2013, 8/8/2013, 8/11/2013 and 8/14/2013.

The first part of the event began in late June 2013, and lasted through early July. In mid-August the smoke again increased and another occurrence of high $PM_{2.5}$ concentrations was recorded. The Skinny Road and Stuart Creek2 fires were the fires closest to Fairbanks during the June/July event and were the primary cause of the high concentrations during that period. However, there were numerous lightning strikes between June 21 and June 26 that resulted in many new fire starts. Because smoke from multiple fires caused the elevated $PM_{2.5}$ concentrations, ADEC decided to treat all the days listed above as one event. While not all seven 24-hour concentrations exceeded the 24-hour of National Ambient Air Quality Standard (NAAQS), all were at least twice as high as levels typical of times with no wildland fire smoke. DEC decided to treat all the days listed above as one event this natural event. Daily $PM_{2.5}$ concentrations varied with meteorological conditions and fire growth or suppression. Although the $PM_{2.5}$ concentrations varied, the cause of the elevated $PM_{2.5}$ levels throughout the entire period was wildland fire smoke.



The document provides a demonstration of a clear and causal relationship between wildfire smoke and elevated $PM_{2.5}$ concentrations. Without these fires, there would not have been any exceedances of the 24 hour averaged $PM_{2.5}$ NAAQS or concentrations above 12 µg/m³ measured at the sampling sites in Fairbanks.

A public notice and comment period of 30 days for the 2013 exceptional events request was provided. No comments were received. However, the draft version was updated to correct a few typographical errors found after posting for public comment. A copy of the online public notice announcement is attached.

Your staff may contact Barbara Trost, Air Monitoring and Quality Assurance Program Manager at (907) 269-6249 or by email to <u>Barbara.trost@alaska.gov</u> if you have question or need additional information.

Sincerely,

Derine Norg

Denise Koch, Director Division of Air Quality

- Enclosures: Exceptional Events Waiver Request for Exceptional PM_{2.5} Events between June 27 and July 6, 2013 and August 1 and August 14, 2013 in Fairbanks, Alaska Public Notice Announcement
- cc: Justin Spenillo, U.S. EPA, Region 10 Robert Kotchenruther, U.S. EPA, Region 10 Barbara Trost, ADEC, AMQA Ron Lovell, FNSB