COLORADO
Department of Public
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

5/9/16

Dear Mark Hutson:

The Colorado Department of Public Health and Environment (CDPHE), Air Pollution Control Division (APCD) is currently evaluating calendar year 2015 ambient ozone data for potential stratospheric ozone intrusion events, and wildfire smoke events that may be considered for Exceptional Event status as defined by the Code of Federal Regulations (CFR) Title 40 Parts 50 and 51. The APCD has identified nine stratospheric intrusion events and nine wildfire smoke events in 2015, of which, one stratospheric intrusion event appears to have significantly affected the Southern Ute Indian Tribe's Ignacio and Bondad ozone monitors.

The Exceptional Event Rule (EER) was published March 22, 2007 and became effective May 21, 2007. The EER allows the ambient air quality data which is submitted to AQS and used in making regulatory decisions, to be, in some cases, flagged and, where appropriate, excluded from calculations in determining whether or not an area has attained the standard. As these Federal and/or Tribal operated ozone analyzers are, or may be designated as, regulatory analyzers, Colorado will be held liable for making National Ambient Air Quality Standards (NAAQS) determinations from data collected by these analyzers. The data flagged as "exceptional" must have been affected by an exceptional event, which is defined as an event that affects air quality, is not reasonably controllable or preventable, is an event caused by human activity that is unlikely to recur at a particular location or a natural event, and is determined by the EPA, in accordance with 40 CFR 50.14, to be an exceptional event. The reporting agency has until July 1st of the year following the year in which the measurement occurred to flag the suspect measurement and add an initial description of the exceptional event. Subsequently, the responsible regulatory agency has up to 3 years from the time of the event to conduct analysis, prepare justification and submit documentation for EPA consideration of concurrence. Ultimately, only flagged events that are in excess of the current design values will be considered for justification documentation.

The following date/time ranges from the Ignacio and Bondad ozone monitoring sites, as identified by the APCD, have been influenced by a stratospheric ozone intrusion event and should be appropriately flagged in AQS with an "RO" (Stratospheric Ozone Intrusion) qualifier code and be associated with an AQS stratospheric intrusion event description. The APCD does not have the AQS screening group clearance to add qualifier codes to data collected at tribal air monitoring sites and requests that the Tribe consider flagging these data. If the Tribe elects to flag this data, it must be done by June 30th, 2016.

Stratospheric Ozone Intrusion Events ("RO" Request Exclusion Flag)

6/8/15 Event

Ignacio	*(08-067-7001)*	*6/8/15, hour 9*	*to*	*6/8/15, hour 19*
Bondad	*(08-069-7003)*	*6/8/15, hour 11*	*to*	*6/8/15, hour 19*

Stratospheric ozone intrusion and wildfire smoke events are forecasted and documented by the APCD meteorologist for public advisories. Once an event is verified and data is validated, all 1 hour average data associated with the forward looking 8 hour averages in excess of 70 ppb are flagged with an RO or RT qualifier code in AQS, additional 1 hour data points occurring prior to the 1 hour points associated with 8 hour averages in excess of 70 ppb may be identified to further clarify the start of the event.

Data from the Ignacio and Bondad ozone monitors were obtained from AQS and evaluated using the same criteria as APCD data. The above listed data are a result of that evaluation.

To keep event descriptions consistent within AQS and in accordance with EPA guidance (https://www.epa.gov/sites/production/files/2015-09/documents/exceptional_events.pdf), the APCD has used the below language to individually define the above mentioned events in AQS. It is recommended that other agencies use similar language when defining the above mentioned events in AQS.

AQS Event Description
Qualifier Code: "RO" (Stratospheric Ozone Intrusion) or "RT" (Wildfire Smoke- U.S.)

Event Description:
"Stratospheric Ozone Intrusion Event - <*Event Start Date*> - Colorado APCD Investigation"
Or
"Wildfire Smoke Ozone Event - <*Event Start Date*> - Colorado APCD Investigation"

Event Start Date: Beginning date of effected data (YYYYMMDD)

Event End Date: Ending date of effected data (YYYYMMDD)

Comments: (for individual events)

> **Comment for 6/8/15 Event (Stratospheric Intrusion - "RO"):**
> "In the wake of a strong upper level trough, an intrusion of tropospheric ozone occurred along the Front Range region of Colorado during the morning hours which had a significant influence on the 8-hour maximum ozone concentrations later in the day. Surface ozone concentrations in western Colorado were also elevated due to residual tropospheric ozone created by intrusions the previous two days."

The APCD is offering this information to the Southern Ute Indian Tribe as a courtesy, and the decision to flag this data resides solely with the Tribe. If the Tribe flags this data, and if the APCD chooses to develop an exceptional event justification document for this event, then the inclusion of the Ignacio and Bondad site into an exceptional event justification document can be performed with prior consent from the Tribe. All exceptional event justification documents developed by APCD will be submitted to EPA for concurrence. The APCD appreciates your consideration in these matters. Please feel free to contact me with questions or comments.

Regards,

Gregory Harshfield
Colorado Department of Public Health and Environment
APCD-TS-B1
4300 Cherry Creek Drive South
Denver, CO 80246
gregory.harshfield@state.co.us

303-692-3232

cc:

Richard Payton	EPA Region 8
Joshua Rickard	EPA Region 8
Gordon Pierce	CDPHE/APCD
Scott Landes	CDPHE/APCD
Cindy Wike	CDPHE/APCD
Lisa Devore	CDPHE/APCD

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