**Comment #1:**

---------- Forwarded message ----------
From: Jim Riggins  
Date: Fri, Jul 21, 2017 at 12:26 PM  
Subject: Comments on Martin Drake Power Plant SO2 Modeling Protocol  
To: cdphe.commentsapcd@state.co.us

Comments on the Colorado Springs Utilities /AECOM proposed “Martin Drake Power Plant SO2 Modeling Protocol” dated March 2017

Jim Riggins  
Monument CO  
Pages 2-1, 5-1:  
**Recommendation:** CDPHE and ACPD should deny Colorado Springs Utilities' (CSU's) proposed use of a 30-day rolling average SO2 emissions rate as an input to AERMOD modeling. CDPHE and ACPD should compel CSU and AECOM to use the readily available 1-hour SO2 measurements taken on-site at Martin Drake.  
**Discussion:** The use of a 30 day rolling average SO2 emissions rate violates the purpose and intent of the 2010 NAAQS protocol. The reason for the move to a 1-hour standard was based on the compelling scientific and medical evidence showing that even short term spikes in SO2 exposure have a severe deleterious effect on the human body. The U.S. EPA presented evidence that SO2 exposure as short as 5 minutes can lead to increased rates of asthma, respiratory and cardiovascular damage. Allowing CSU to use a rolling average will allow SO2 spikes which exceed the 75 ppb 1-hour rate to be masked in any modeling. Emissions data provided by CSU under multiple Open Records requests shows that the operation of the Neumann Systems Group scrubbers for Units 6 and 7 are not operating continuously. Since their activation, the scrubbers have not continuously operated 100% of the time for any given month. It is the 1 hour spikes during these “down times” that pose the greatest threat to the local public’s health.  
**Conclusion:** I urge you to hold CSU to the full letter and intent of the 2010 NAAQS and deny their request to use a 30-day rolling average SO2 output. Please ensure that they use actual, available 1-hour emissions data for their modeling input.

**Comment #2:**

---------- Forwarded message ----------
From: Amy Gray  
Date: Fri, Jul 21, 2017 at 12:41 PM  
Subject: Air Quality monitoring public comment period - Martin Drake Colorado Springs  
To: "cdphe.commentsapcd@state.co.us" <cdphe.commentsapcd@state.co.us>

To Whom it May Concern:  
In regards to the Air Quality monitoring that is up for public comment, as a mother with children in the Colorado Springs area and a customer of Colorado Springs Utilities I would like to give some comments on Martin Drake thus far from my perspective and respectfully request that you CDPHE and the APCD take the health and the lives of over 120,000 children that live under the plume of Martin Drake and the 300,000 residents directly affected into consideration when decisions are to be made for the fate of air quality monitoring in the Pikes Peak Region.

For years (decades), there has been literally no regulatory oversight or enforcement of the Martin Drake Plant by CDPHE Air Pollution Control Division, including allowing its operating permit to remain expired since 2007 TEN YEARS AGO!!

In 2015 the federal agency responsible for regulation of this plant, the US EPA, conducted a review of Drake for sulfur dioxide pollution under a new, stricter air quality standard it promulgated in 2010, having identified Drake as one of the oldest and most polluting in the entire country. Martin Drake still sits at an unclassifiable designation for SO2 at the behest of EPA and the State of Colorado. I am very concerned about the information that CDPHE had presented to the Colorado Springs Utilities Board. In a February Utilities Board meeting Lisa Devore from CDPHE delivered a presentation regarding the Martin Drake
Power Plant and SO2 emissions. She seemed unwilling to confirm basic factual information in the questions asked of her. For example, she would not clarify (when requested) that "unclassifiable" does not mean "attainment".

Of my many concerns, chief among them is that recently CDPHE issued a permit to the Drake plant addressing SO2 pollution where the plant was allowed to ignore the 2010 EPA limit of SO2 and instead use the older, inadequate standard. This new permit allows the Drake plant to emit 410 tons per month, which Lisa Devore from CDPHE acknowledged would probably put them in violation of the NAAQS.

How is this protecting public health and the environment? How can CDPHE continue to allow the Drake plant to operate while seemingly avoiding regulations when it may be posing serious public health concerns?

During the EPA review, CDPHE and APCD found a way to avoid EPA consideration of multiple professional air quality studies that showed dangerous levels of SO2 from the Drake Plant, by wholesale dismissing them by irresponsibly asserting the weather data used was invalid. This includes a professional air quality study that Colorado Springs Utilities itself had its vendor AECOM conduct, but aggressively prevents the public from seeing. Despite requests made to you, you refuse to compel Utilities to release that study to the public. This can only mean that you and Colorado Springs Utilities truly are complicit in hiding the information from the public. How can we begin to trust that this process will be any different? Air Quality monitoring by the very people hiding air pollution data. Sounds perfectly fine to those of us exposed to the pollution from this plant, right? Conveniently, you found a way to allow a two-year delay in any requirement for a new air quality study by Utilities even when all modeling conducted to date showed violations. While you could have taken steps to more immediately serve to assure the public we are safe from this poison, you haven’t - maybe because you know, and are covering up the fact that we ARE NOT in fact SAFE?

The SO2 monitor, while located close to the plant, is not cited properly to measure the bulk of SO2 from the plant (by CDPHE’s own admission during UB meetings I’ve had with CDPHE staff, and even by Utilities’ acknowledgement). Yet APCD regularly states this sole monitor shows the air measured is in compliance with air quality standards for SO2, though there have been five measurements from this monitor showing SO2 levels above the NAAQS standard of 75 ppb. APCD has allowed the Drake plant to continue to operate, risking exposing Colorado Springs residents to dangerously high levels of SO2 for TWO more years while additional meteorological data is collected with no stipulations for their operation and no date set to re-evaluate SO2 emissions.

“The purpose of this protocol is to establish a modeling procedure that can be utilized by CDPHE as a technical component in redesignating air quality in the vicinity of Martin Drake Power Plant for the 2010 SO2 NAAQS.”

What is amazing to me is that all of these discussions in Springs, to date, center around just one NAAQS standard, that was implemented in 2010 as if there weren’t a whole host of other 1-hour, 3-hour, 24-hour, and annual standards for SO2, NO2, CO, PM2.5, PM10 and HCl that this plant has also been allowed to ignore as though they never existed, since the 1970’s!

Yet a review of the current protocol released for this public comment indicates the standard it relies upon is BART which is a 30 day averaging – the looser standard that was in place before the 1 hour standard went into effect in 2010. It was intentionally replaced, but yet you are willing to allow Colorado Springs Utilities to use it instead. So once again, CDPHE is allowing Utilities to simply bypass its regulatory responsibilities designed to protect human health.

It is very obvious to me, and likely to others, that your continued refusal to set hourly pollutant emission limits for sulfur dioxide, that are determined to be safe for the citizens around it, stems from a perspective that derives from a too-close association with those who have deftly learned to continually fight citizens for these same protections.

The citizens have been engaged on this issue, given the two petitions with over 2100 collective signatures (see links below), and the overwhelming support given to Leslie Weise while she has been so mistreated by the City of Colorado Springs while simply...
trying to make sure air quality information such as this is transparent and accurate to all residents. Your conduct makes you


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http://www.oneclickpolitics.com/messages/edit?promo_id=2601

CDPHE seems willing to ignore the intent of the NAAQS, in favor of the industrial polluter they are tasked to regulate. While CDPHE’s role is to ensure protection of public health, they instead seem immersed in ways to find loopholes that favor CSU while actually placing people’s health at risk. Since Lisa Devore and Chris Colclasure do not demonstrate responsibility toward the residents of Colorado Springs, perhaps their reassignment and replacement with individuals who will take this trusted role seriously is appropriate.

I hereby formally request to review all submissions made during this public comment period.

Respectfully.
Amy Gray

350 Colorado - Because there is no Planet B.
350 Colorado Springs

View us on Facebook: https://www.facebook.com/350coloradosprings
Join us on Twitter: @350ColoSprings

Comment #3:
------------- Forwarded message -------------
From: Nicole Rosa
Date: Fri, Jul 21, 2017 at 1:05 PM
Subject: Comments on Martin Drake Power Plant SO2 Modeling Protocol
To: "CDPHE - AQCC Comments - CDPHE, cdphe" <cdphe.aqcc-comments@state.co.us>, cdphe.commentsapcd@state.co.us

Dear CDPHE,
I have been following CDPHE’s "management" of Colorado Springs Utilities, particularly the Drake plant, for years. I am disgusted that CDPHE continues to support one of the largest industrial polluting facilities in the state, over the health of Colorado Springs residents.

Virtually every other coal plant's Title V permit in the state has been renewed but not Drake, which sits in the heart of the state's 2nd largest metropolitan area.
This is inexcusable and shameful.

This modeling protocol represents yet another disappointment.

The main problem is that CDPHE plans to rely on BART pollution limits which are based on 30-day averaging. What needs to be accurately modeled are the ONE HOUR SPIKES in SO2, as those are harmful to health.

As little as 3-5 minutes of high SO2 exposure is enough to trigger an asthma or other respiratory attack. These spikes would simply average out during any 30 day period being reviewed.

An industrial emitter of SO2 could easily adjust potential violations during any 30 day period by simply reducing generation for a period of time to assure they would remain in compliance.

The one hour standard was designed for the explicit purpose of preventing facilities from gaming their operation!

CDPHE’s modeling protocol simply overlooks this and gives CSU yet another free pass to continue to pollute at will.

Please accurately model the one-hour spikes in SO2, not just the 30-day average!! Our region is already Unclassifiable. We at least deserve to be modeled properly and strictly.

Sincerely,
Comment #4:
---------- Forwarded message ----------
From: Leslie Weise
Date: Fri, Jul 21, 2017 at 3:10 PM
Subject: Public Comment by Leslie Weise Concerning the CDPHE/APCD Martin Drake Power Plant SO2 Modeling Protocol
To: "cdphe.commentsapcd@state.co.us" <cdphe.commentsapcd@state.co.us>
Cc: Leslie Weise

While disappointing, it is in no way surprising that once again, CDPHE is handing its regulatory oversight responsibility keys to the industrial polluter, Colorado Springs Utilities (CSU). It was apparent this would happen when CDPHE gave authority to set the modeling protocol to study sulfur dioxide emissions from the Martin Drake Power Plant (Drake) to CSU and its contracted vendor AECOM (paid by CSU to give work product most favorable to it), rather than an independent third party firm or to CDPHE. This is of course akin to allowing the fox to guard the hen house. This, after already giving CSU over a two year delay to take any meaningful action regarding CSU’s known SO2 problem. CDPHE had knowledge that residents and visitors to our region were likely already exposed to unsafe air quality since every single one of the many modeling studies conducted on Drake over the past five years, including that conducted by CSU/AECOM itself, has demonstrated significant violations of the 2010 NAAQS Standard for SO2 have very likely been occurring. A responsible agency would have instead taken actions demonstrating an abundance of caution towards citizens under these conditions.

Now we have learned through this public review process (as both Lisa Devore and Chris Colclasure have stated to the concerned citizens who only want to ensure the air we are breathing is safe - that we should feel fortunate to be allowed to participate because CDPHE isn’t obligated to give us this privilege), that CDPHE is allowing CSU to use the BART standard for its analysis, which relies on the 30 day averaging of emissions data - rather than the NAAQS Standard it is supposed to be enforcing.

It is my understanding, the reason any of us is even having this communication is because of the requirements imposed upon industrial polluters by the revised NAAQS standard for SO2 promulgated in 2010. 30 day averaging was found to be an inadequate standard because of spikes in SO2 emissions that sometimes occur that were found to be damaging to people’s respiratory system. It also enabled operators to game their facility’s operations over a given 30 day period, essentially allowing them to cheat that standard. Thus the 30 day averaging standard was replaced with the 1-hour standard.
Yet, CDPHE is now willing to allow CSU to avoid the 1-hour and revert back to the 30 day averaging standard that was found to be insufficient? Why is not enforcing the current standard?

As the EPA noted in its feedback, CDPHE has also granted CSU the ability to cherry-pick optimal data to incorporate into the modeling. All this enablement by CDPHE has occurred – while the residents of the region around Drake have had to endure potentially unsafe levels of air quality pertaining to sulfur dioxide emissions.

CDPHE has shown a consistent pattern of deference to CSU, over any cautionary proactive steps it could have taken to protect the public. The instances are too numerous to list; a couple examples include allowing Drake’s Title V operating permit to remain expired for over ten years, claiming that the Colorado Springs airport data could not be relied upon giving CSU a 2+ year pass to pollute at potentially unsafe levels without consequences, and by instilling confusion with the public – i.e. Lisa Devore’s public refusal to acknowledge in front of the Colorado Springs City Council that a designation of unclassifiable did not mean the same thing as attainment.

We demand honest, transparent regulatory oversight of Colorado Springs Utilities and Drake. Our region has not yet received it from CDPHE. We will not stop making this demand until our needs our addressed, and we can be assured that we are safe from air quality pollution risks.

I would like to request that the submissions made during this public comment period are made available on a CDPHE web-link for the public to view.

Sincerely,
Leslie Weise
Monument, CO

Comment #5:

From: Francois Raab
Date: Fri, Jul 21, 2017 at 7:49 PM
Subject: Martin Drake SO2 Modeling Protocol Public Comment
To: "cdphe.commentsapcd@state.co.us" <cdphe.commentsapcd@state.co.us>
Cc: Lisa Devore <lisa.devore@state.co.us>

Section 2.1, Page 2-1:
The comment provided by CDPHE/CAPCD was helpful in clarifying this section. However, while the approach used might be relevant and valid to “properly account for short-term emissions spikes that can impact a 1-hour rate but be smoothed out over a 30-day rate”, it is not applicable in the case of the Martin Drake coal-fired power plant.

Two SO2 pollution control devices were installed in September 2016, one for Unit 6 and the second for Unit 7. The existing emission data from the last 16 months (Q1-2016 to Q2-2017) confirm that, when in operation, these control devices result in a significant reduction in SO2 emission, on the order of 90%. As a result, each unit is capable of operating in two very distinct modes: one with control devices on and one with control devices off. The contrast in SO2 emission between these two modes is a full order of magnitude, as a result of the effectiveness of the devices when activated and as evidenced by the data presented below.
The above graph illustrates the reduction in daily SO2 emission when the control devices were operating. The two dotted lines at the bottom of the graph show the average SO2 emission from Unit 6 and Unit 7 during these periods. In contrast, the two dotted line toward the top of the graph show the average SO2 emission from Unit 6 and Unit 7 during days when the control devices were not operating.

Based on the above, it appears unreasonable to conclude that Unit 6 and Unit 7 would only be subject to “short-term emissions spikes”. Rather, the two remaining units of the Martin Drake Power Plant are most likely to operate with a low level of emission when the control devices are activated and with a ten-fold increase in the levels of SO2 emission when the control devices are shut-down. This behavior, specific to the Martin Drake facility, must be taken into consideration when defining the emission rates used for modeling.

The current modeling protocol calls for using emission rates of 157.6 lb/hr for Unit 6 and 244.6 lb/hr for Unit 7. These are derived from the facility’s 30-day Allowable Emission Limit, with a 0.71 allowance factor to account for "short-term emissions spikes". However, these limits are far above the emission levels expected when the control devices are operating and far below the emission levels expected during down-time of the control devices.

Using emission rates based on allowable limits could produce modeling results that will show attainment. But, modeling with emission rates based on either Units operating with its control devices disabled, could show the facility to be in non-attainment. This problem is further compounded by the nature of the Allowable Emission Limit which is based on a 30-day average. Based on the available data, either Units could operate with its control devices disabled for up to 19 days without exceeding their respective Allowable Emission Limit, as illustrated by the graphs below:
The above graphs show the 30-day average emissions based on a number of down-time days for the control devices. The dotted lines show the 30-day Allowable Emission Limits. The 30-day average emission numbers (in lb/h) are based on actual emission data and calculated as follows:

<table>
<thead>
<tr>
<th>Unit</th>
<th>Down-Time Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 6</td>
<td>256.42 13.47</td>
</tr>
<tr>
<td>Unit 7</td>
<td>393.52 32.61</td>
</tr>
</tbody>
</table>

Recommendation
The modeling results should be produced using two emission rates: the rate based on the 30-day Allowable Emission Limit, adjusted for "short-term emissions spikes", as proposed in the protocol; and a second rate calculated based on the known emission levels when Units are operating during down-time of their control.
devices. If the modeling results produced with the second emission rates show non-attainment, the facility should be prohibited from running a Unit while its control device is inactive. For practical considerations, a short "grace period", of the order of one hour, could be considered between the time a control device becomes disabled and the time when the corresponding Unit has been shut down.

Respectfully submitted,
Francois Raab

Attachment: The full spreadsheet used for this analysis is provided as an attachment to this comment.

Comment #6:
See separate Sierra Club file.

Comment #7:
---------- Forwarded message ----------
From: sherriesmith84
Date: Fri, Jul 21, 2017 at 11:30 PM
Subject: Air
To: cdphe.commentsapcd@state.co.us

To Whom it May Concern:

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CDPHE seems willing to ignore the intent of the NAAQS, in favor of the industrial polluter they are tasked to regulate. While CDPHE's role is to ensure protection of public health, they instead seem immersed in ways to find loopholes that favor CSU while actually placing people's health at risk. Since Lisa Devore and Chris Colclasure do not demonstrate responsibility toward the residents of Colorado Springs, perhaps their reassignment and replacement with individuals who will take this trusted role seriously is appropriate.

I hereby formally request to review all submissions made during this public comment period.

Respectfully,
Sherrie Smith
COS CAN Organizer
80817