



Administrator KC Becker
US EPA, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129
Via Email: Becker.KC@epa.gov

November 7, 2023

Dear Administrator Becker,

Thank you for your continued engagement on protecting the air quality and public health by overseeing the ongoing concerns regarding minor source permitting by the Colorado Department of Health and Environment (CDPHE). We appreciate the time and resources that EPA Region 8 expended in responding to the entire CDPHE Modeling Unit complaint submitted to the Office of Inspector General (OIG) in March 2021. We are writing in response to the CDPHE interim response of September 15, 2023 of to the EPA OIG report of July 2022.

I. CDPHE Failure to Complete Recommended Permit Reviews

We are disappointed in CDPHE's lack of progress in completing the review of the 11 permits as recommended by the EPA. EPA stated in the July 2002 report, "For the 11 permit records identified in the complaint, amend permit actions as appropriate by conducting refined modeling, incorporating additional/revised permit conditions, and/or potentially including post construction ambient air monitoring."

Despite being aware of these issues since the 2021 OIG report, CDPHE has failed to provide a definitive timeline for resolving these permits. In our conversation in the EPA/CDPHE/PEER meeting of September 25, 2023, CDPHE stated that they do not have a timeline to resolve these permits.

Furthermore, the scope of concern extends beyond the 11 permits, highlighting systemic flaws in the agency's approach to minor source permitting and compliance with NAAQS. The 11 permits brought to EPA by the whistleblowers were only examples of the larger problem of the agencies reliance on the since abandoned Memo 10-01 and the failure of CDPHE to consider all of the NAAQS in minor source permitting. There were thousands of permits issued with the same process and CDPHE has no intent to look back at these permits.

We request that EPA set a deadline for CDPHE to resolve the 11 permits within the next three months. We request that EPA perform an audit of all permits issued since 2010, considering whether the facilities are in compliance with the NAAQS. EPA can prioritize the permits issued where facilities are the most crowded together, so beginning with those in the ozone non-attainment area and Environmental Justice area.

II. CDPHE Failure to Make Permit Modeling Documents Available to the Public

EPA had recommended in July 2022 Report that, “In light of the high level of public interest on these issues, the EPA notes that any revisions to these permits, including the permit record, would benefit from public notice and comment, even if state rules would not so require.”

Note that in the EPA/CDPHE/PEER meeting on September 25, 2023 when PEER requested copies of the new modeling we were told that wasn’t possible.

In the interest of transparency, we request that EPA direct CDPHE to make the revised modeling reports and the files for these 11 cases be made public so that any interested party can review them and comment on them.

III. CDPHE Failure to Evaluate Particulate Matter (PM) NAAQS

In the analysis of the 11 permits, CDPHE failed to address the Particulate Matter NAAQS even though all of the NAAQS (including PM) were explicitly the subject of the OIG complaint. The majority of the 11 examples are asphalt plants and/or mining operations, all of which have a significant amount of fugitive PM emissions. That is something that would be clear to any CDPHE Air Division expert simply because of the nature of the industrial processes that take place at those types of facilities, so there is really no defensible excuse for not checking the PM NAAQS.

We are surprised that the new Air Division administration continue to ignore PM NAAQS for those same facilities now.

We must consider whether CDPHE is making the conscious decision to ignore the PM NAAQS standards and not working in good faith to try to solve the air pollution problem. We request that EPA direct CDPHE to address PM 2.5 and PM 10 concerns that were not addressed or resolved.

IV. Permit Issues

We have prepared comments on some of the 11 facility permits for which the NAAQS violations have not been fully addressed and have attached some documents to show that some of the 11 cases still need a substantial amount of work to solve the corresponding NAAQS problem.

It is not clear to us how CDPHE has re-opened these permits for analysis while at the same time has told the public that they don’t have the legal authority to go back and review old permits. We are encouraged by this precedent setting action.

1) D90 Energy, LLC (formerly SandRidge Exploration & Production, LLC) Bighorn Pad.

The modeling was originally done assuming a conservative 100% NO_x to NO₂ conversion and the results exceeded by six times the 1-hr NO₂ NAAQS. However, as explained in Attachment A based on the emission rate and the NO₂/NO_x in-stack ratio, the results for a Tier 3 refined modeling would go down by half. At the most this would result in the concentration exceeding the NAAQS by 3 times. Unless the facility has drastically reduced their emissions, we are unclear how they would lower those concentrations and would like to see more background documents.

We request that EPA review the modeling documents and require that CDPHE make them available to the public.

2) Cripple Creek & Victor Gold Mine Facility

CDPHE states that *"initial modeling was done using EPA's accepted modeling practices at the time. EPA's treatment of the NOx to NO2 conversion has evolved over time. Therefore, because modeling practices have since been updated, the PMU requested a revised model analysis for review"* and goes on to explain that new modeling is currently being reviewed.

We are concerned that CDPHE does not explain the extensive manipulation that took place with this application. There was questionable data and procedures were approved by management and used to lower the modeled concentrations including the fabricated NO2 background concentrations. We do not know if the issues were corrected in this new modeling and instead the old issues may have just been carried over. See the Attachment 1, CC&V email.

Table 1 in the CDPHE Interim Report fails to list PM2.5 and PM10 as pending review, yet there was sufficient information to show that those standards also had violations.

Though EPA stated in the July 2022 report, "For the Cripple Creek and Victor Gold Mine, this would also include providing an explanation demonstrating that the various projects were not under aggregated when determining the projects qualified for Minor NSR permits," there is no mention of the split-off of a smaller portion of the larger individual project and permitting this smaller activity before finalizing the permit for the larger project.

EPA stated in the July 2022 response, that did look at is and stated:

"Based on our limited review of this information, however, we had concerns about allegations that CDPHE managers pressured staff to approve analyses which staff felt were based on false information, and potential conflicts of interest on the part of a CDPHE manager involved in the permit actions related to this facility. We viewed these concerns primarily as personnel matters that would best be addressed by the Colorado Attorney General's office and shared this with the OIG in October 2021."

We request that EPA refer the CC&V case to the Colorado Attorney General's Office in that there were potential criminal actions that should be resolved.

3) Martin Marietta Materials Highway 34

CDPHE Interim Report states that through an internal evaluation, the Air Division concluded that there are no modeled violations.

We request that EPA review the CDPHE internal evaluation and make that review public.

4) Williams Willow Creek Gas Plant.

CDPHE Interim Report states that through an internal evaluation, the Air Division concluded that there are no modeled violations. The gas plant has a large increase in SO2 emissions and has a large NAAQS modeled violation. It was arbitrarily exempted from NAAQS compliance. See Attachment B.

We request that EPA review the CDPHE internal evaluation and make that review public.

5) Colowyo Coal Mine - Collom Expansion.

It is true that the concerns presented in the OIG complaint referred to the original permitting action that was later fixed when the company requested a permit modification and submitted revised modeling. What is not mentioned in the CDPHE Interim Report is that the revised modeling was submitted only because an environmental group filed a lawsuit challenging the issuance of the permit by CDPHE with a NAAQS violation. See the lawsuit, Attachment C.

6) Asphalt Specialties Central/Road 6 Plant.

CDPHE has repeatedly told EPA and the public that it does not have the authority to reopen permits. We are pleased to see that the state has now decided that it can revise modeling analysis and legitimately use its authority to require the facilities to make changes.

7) Martin Marietta Materials (MMM) Monaghan Facility.

CDPHE's Interim Report refers only to 1-hr NO₂ as the issue to be resolved in this permit, but the complaint to the EPA-OIG referred to the facility arbitrarily being exempted from complying with the PM_{2.5} NAAQS. In Attachment D the Permit Engineer reviewing the application says: *"we don't have a specific policy I can point to that says "you can always ignore the daily PM_{2.5} modeling threshold", but we do it on more of a case-by-case basis."* This facility was included in the original OIG complaint because of the PM_{2.5} NAAQS, and not because of concerns with NO₂. Also, the reason for including this permit application in the complaint, was to show that in addition to the PS Memo 10-01, totally arbitrary decisions were regularly being made to ignore the NAAQS.

We request that EPA set a deadline for CDPHE to model PM_{2.5} for this facility.

8) Aggregate Industries - Oxford Asphalt Plant.

CDPHE's Interim Report refers only to 1-hr NO₂ as the issue to be resolved, but the complaint to the EPA-OIG referred to the permit engineer having approved NAAQS compliance for PM_{2.5} and PM₁₀ using an outdated and inadequate model that EPA no longer accepts as regulatory. See Attachment E.

We request that EPA set a deadline for CDPHE to model PM₁₀ and PM 2.5 for this facility.

9) JBS Swift Beef Company Facility.

The CDPHE Interim Report states that because there was no increase in the permit limit, modeling is not required and therefore there was no further action needed. However, during the public comment period a third party, the Center for Biological Diversity, submitted independent modeling showing modeled NAAQS violations. If the air quality problem exists and it's caused by the facility being permitted, CDPHE should address the issue regardless of whether the emission limits increase or not.

CDPHE has a legal obligation to verify NAAQS compliance prior to issuing a permit and that requirement exists for every single permit and is not dependent on an increase in emission limits.

We fail to understand how CDPHE determined that the proposed project complies with the NAAQS when there is evidence showing the contrary. And finally, this case exemplifies the disregard that CDPHE has toward comments received by the public during permitting actions.

We request that EPA investigate the modeled violation and consider the public comment since CDPHE did not.

10) McCormick Asphalt Facility.

CDPHE's letter refers only to 1-hr NO₂ and 1-hr SO₂ as the issue to be resolved, but the complaint to the EPA-OIG referred to the PM₁₀ and PM_{2.5} modeling as being done incorrectly without including any fugitive emissions. The complaint also cites the fact that the NO₂ modeling fails to include the cumulative impacts from a nearby large ethanol plant that was already causing NAAQS modeled violations See Attachment F. It is unclear if the revised NO₂ modeling included the cumulative impacts, and there is no mention to PM₁₀ and PM_{2.5}.

We request that EPA review the modeling for NO₂ and set a deadline for CDPHE to model PM_{2.5} for this facility.

11) Asphalt Specialties 62nd Avenue Plant.

CDPHE has repeatedly told EPA and the public that it does not have the authority to reopen permits. We are pleased to see that the state has now decided that it can revise modeling analysis and legitimately use its authority to require the facilities to make changes. See Attachment G.

V. Misleading representation of Modeling Unit role in Permitting Process

We want to bring your attention to a paragraph in the CDPHE letter that contains false and misleading information.

"It is worth noting that, with respect to the modeling underlying the 11 permit records identified by the EPA, the Air Division's Modeling and Emissions Inventory Unit (MEIU) did not follow standard procedures. The modeling in these cases was done by the MEIU with little to no consultation with the applicant. Under normal circumstances, an applicant is informed that a modeling evaluation is required. In those cases, the applicant will conduct the modeling analysis starting with conservative assumptions that would yield less restrictive permit conditions. If the modeling results show a potential NAAQS violation, then the applicant will implement modeling refinements (e.g., Tier 2 and 3 methods for NO_x to NO₂ conversion) or restrictions (e.g., limit on hours of operation) that would yield an analysis that complies with the applicable NAAQS and a permit with enforceable conditions. This process is currently in place at the Air Division.

However, for the 11 cases evaluated, the Air Division's review identified that this process was not followed and the modeling done at the time by the MEIU involved little to no interaction with the applicant. This resulted in very conservative assumptions and results uninformed by representative operation."

CDPHE is portraying the situation as if a rogue Modeling Unit did permit analyses on their own, with disregard for procedures that were in place and with no information from the applicant. That picture is far from the truth. All but one of the 11 cases were part of permit applications in which the applicant had submitted modeling analyses and that the Modeling Unit staff were reviewing.

The Modeling Unit was in regular contact with the applicants and had requested all the necessary information to do the additional modeling. The statement that the Modeling Unit had little to no consultation with the applicant is simply false.

The reality was that CDPHE's management was undermining the Modeling Unit efforts to get additional information from applicants or to get them to submit additional, refined modeling. Management was often using Memo PS 10-01 to exempt facilities from modeling or were making arbitrary decisions. These decisions by management were all documented by the whistleblowers in the OIG complaint and provided to EPA.

Moreover, the standard procedures that the letter describes as happening under normal circumstances were in reality the exception—this is precisely what pushed the Modeling Unit to file the complaint with the OIG. Every time that Modeling Unit staff would find a potential NAAQS modeled violation and they wanted to request additional information or ask the applicant to submit refined modeling, CDPHE management would intervene to override the MEIU requests and exempt the applicants from this requirement. This resulted in the 11 permits having modeled concentrations based on conservative assumptions that were made without consultation with the applicant. When in fact, there is a culture at CDPHE of exempting industry from making important changes in their operations to comply with NAAQS.

We are troubled that CDPHE continues to deny that it was a management decision to not implement the minor source permitting program as required by the SIP. CDPHE could simply acknowledge the issues and say that they are trying to fix the problem, but instead CDPHE chooses to make excuses, fails to be transparent in not releasing the revised modeling, and fails to respond to EPA in a timely manner. We question whether the agency is making a good faith effort to fix the problem.

Sincerely,

Chandra Rosenthal
Rocky Mountain Director

Attachments:

ATT 1 CCV EMAIL.pdf
ATT A_BIGHORN EMAILS 02062020.pdf
ATT B_WILLIAMS WILLOW CREEK EMAIL.pdf
ATT C_2018-07-25 Complaint (Center for Bio Div).pdf
ATT D_MONAGHAN FACILITY PM25 EMAILS.pdf
ATT E_ OXFORD ASPHALT PLANT EMAILS.pdf
ATT F_ MCCORMICK EMAILS.pdf
ATT G_ ASPHALT SPECIALTIES CENTRAL PLANT EMAIL.pdf

References:

- 1. EPA OG Hotline Complaint No: 2021-0188 Report July 2022, EPA recommendations to CDPHE**

To address these concerns, we recommend that CDPHE consider these measures:

1. Ensure that all future Minor NSR permit records are complete and include sufficient documentation to support permit conditions and contain analyses that demonstrate that the permit conditions will not cause NAAQS violations. As needed, undertake additional qualitative or quantitative air quality analyses to demonstrate that the permit conditions comply with the NAAQS and include these analyses in the permit record.
2. For the 11 permit records identified in the complaint, amend permit actions as appropriate by conducting refined modeling, incorporating additional/revised permit conditions, and/or potentially including post construction ambient air monitoring. For the Cripple Creek and Victor Gold Mine, this would also include providing an explanation demonstrating that the various projects were not under aggregated when determining the projects qualified for Minor NSR permits. In light of the high level of public interest on these issues, the EPA notes that any revisions to these permits, including the permit record, would benefit from public notice and comment, even if state rules would not so require.
3. Maintain complete public records for all NSR permits. Records should be retained for 10 years after the permit expires, is terminated, or withdrawn, or longer if required under state law.
4. Improve communication and coordination among the APCD groups that work on NSR permits.
5. Ensure that complex and multi-year projects are covered under the proper major or minor source program permit requirements based on appropriate aggregation considerations and have adequate air quality impact analyses (AQIAs), and that any decisions to permit individual units are justified and adequately documented in the permit records.
6. During quarterly meetings between APCD and EPA Region 8 permitting managers, provide status reports on newly issued Minor NSR permits that describe the AQIAs and permit condition determinations.

2. CDPHE Interim Report: September 15, 2023

Dear Regional Administrator Becker:

The Colorado Department of Public Health and Environment (CDPHE) Air Pollution Control Division (Division) has been reviewing for NAAQS compliance the 11 permit records identified in the PEER complaint. This review is in response to EPA's Recommendation 2 provided in the EPA Region 8 Final Report Responding to Hotline Complaint No. 2021-0188 (signed July 14, 2022). Attached is the [report of our findings](#) for the 11 facilities, along with a summary of the Air Division's conclusions and identified next steps.

We are looking forward to our September 25th meeting to go over these findings if there is interest.

Thank you.

Trisha Oeth
Director of Environmental Health and Protection



CC&V Modeling Results

1 message

Rosendo Majano

Thu, Mar 12, 2020 at 2:33 PM

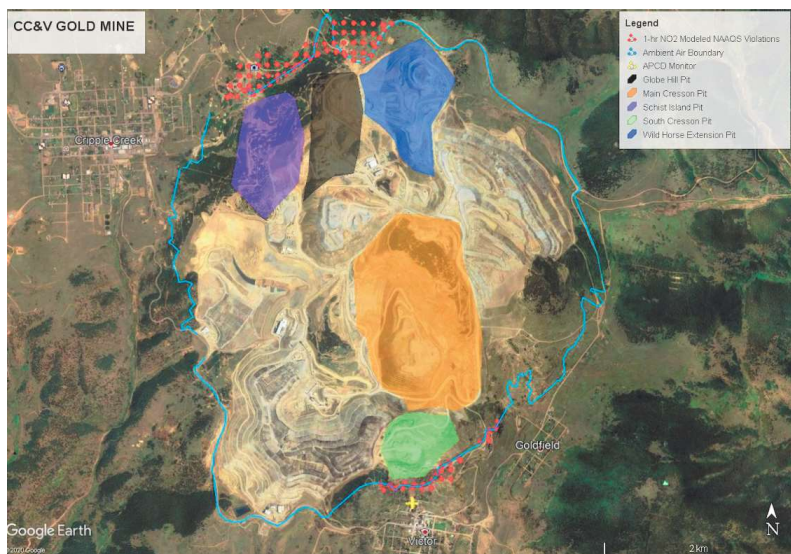
To: Emmett Malone

Emmett,

You requested the maximum modeled concentrations on both the south and north portion of the CC&V Mine property boundary shown in the figure below and listed as 1-hr NO₂ Modeled NAAQS violations.

As you know, officially there aren't any modeled violations at the CC&V Mine. That's because of the 01/14/19 and 01/28/19 emails from Gordon Pierce requesting to remove the concentration exceeding the NAAQS from the report and to replace them with a value that was lower and that was based on incorrect data. Therefore officially the highest modeled concentration is of 187.7 ug/m³ (99.77 ppb). The NAAQS is of 100 ppb.

Reality however, is very different. The actual highest modeled design concentration in the southern area of the mine is of 229.34 ug/m³ (121 ppb). In the northern area of the mine this concentration is of 225.78 ug/m³ (120 ppb). This is the information you are now requesting.



Those results above beg the question, if the Division is now acknowledging the modeled NAAQS violations, why would the permit be issued?

Wouldn't that create the exact same situation as the ColoWyo Mine permit that was challenged in court for being issued with a NAAQS modeled violation?

Rosendo Majano

Permit Modeling Work Lead

Modeling and Emissions Inventory Unit



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

1530

STATE OF
COLORADO

Majano - CDPHE, Rosendo <rosendo.majano@state.co.us>

Re: Modeling Question

1 message

Rosendo Majano <rosendo.majano@state.co.us>

Thu, Feb 6, 2020 at 9:11 AM

To: "Slaughter - CDPHE, Harrison" <harrison.slaughter@state.co.us>

Cc: Emmett Malone <emmett.malone@state.co.us>

Bcc: Bradley Rink - CDPHE <bradley.rink@state.co.us>, "Reynolds - CDPHE, DeVondria" <devondria.reynolds@state.co.us>, Tom Orth - CDPHE <tom.orth@state.co.us>

Harrison,

I looked at the modeling review report and there are modeled violations of the 1-hr NO₂ NAAQS with the maximum design concentration being more than six times higher than the NAAQS.

I also looked at the emissions calculations associated to that report and the total NO_x emissions modeled back in May 2017 were of about 23 tpy. However, in the permit that you sent me dated November 2018 the NO_x emissions have increased to about 34 tpy. This is consistent with your explanation that the facility added more controls because those controls for VOCs will increase NO_x emissions.

Now the company is indicating that the emissions will decrease as a result of the modification, so my question is: Are the new emissions going to be lower than the originally modeled 23 tpy?

I think that's a key piece of information because if 23 tpy resulted in modeled concentrations that were six times the 1-hr NO₂ NAAQS, then the emissions reductions and/or other changes at the facility would have to be significant to bring those results below the NAAQS.

One factor that I should mention is that the previous modeling was conducted assuming that 100% of the NO_x emissions converted to NO₂. That's a conservative assumption that would need to be refined in any future modeling for this facility, and I would expect that the resulting concentrations would go down. However, if no changes are made at the facility those modeled concentrations will continue to exceed the 1-hr NO₂ NAAQS. That's because all the sources at this facility are flares or thermal oxidizers, and those units have NO₂/NO_x in-stack ratios of 0.5, which means that at the very minimum half of the emissions are already NO₂ when coming out of the stacks; so the modeled concentrations with refined modeling would be no lower than 3 times the NAAQS.

The previous modeled highest design concentration was of 633 ppb (the 1-hr NO₂ NAAQS = 100 ppb), so refined modeling would just bring this result down to no less than 316.5 ppb. The conversion of NO_x to NO₂ of the other half of the emissions will only raise that value. In addition, the previous modeling results did not include the contribution of nearby sources nor any background concentration, so once you add that the total impact will be even higher.

Considering all the above, and with the information that I have right now, I would recommend to request the company to submit a refined modeling analysis to demonstrate compliance with the 1-hr NO₂ NAAQS.

I cannot make any specific recommendations about what the company would have to do to reduce their impacts on ambient air, but I think this facility will have to make some changes to their process or to their emission units because with the 2017 configuration and total NO_x emissions of 23 tpy there is a clear modeled violation of the 1-hr NO₂ NAAQS.

Let me know if you have any questions or want to discuss this further.

Rosendo

Rosendo Majano

Permit Modeling Work Lead

Modeling and Emission Inventory Unit

Air Pollution Control Division

Colorado Department of Public Health and Environment

APCD-TS-B1

4300 Cherry Creek Drive South

Denver, CO 80246

303-692-3115 | rosendo.majano@state.co.us

On Wed, Feb 5, 2020 at 10:16 AM Slaughter - CDPHE, Harrison <harrison.slaughter@state.co.us> wrote:

Hi Rosendo,

Thank you for the input. According to the information provided by the operator, the emissions (NOx and CO) at the facility are decreasing as a result of the modification. Additionally, I've provided some answers to the questions you posed below.

- 1- The previous modeling analysis to check the magnitude and location of the highest modeled concentrations in relation to the location of the sources. I am not certain where to find this information in the modeling report. I've attached the modeling report for this facility to this email for your reference.
- 2- More details about the changes at the stack(s). It appears that there have been two changes to control equipment. First, the existing two "Produced Gas Flares" (point 002) were replaced with three (3) different flares. Further, an additional flare was added to control emissions from the other equipment at the facility (points 001, 003 and 004). This increased the number from two to three flares controlling the additional equipment. I've attached a copy of the most recent permit for your reference. Condition 27 references the current requirements for the flare stacks at this facility.
- 3- Are the new stacks taller or shorter and by how much? Each of the three (3) new "produced gas flares" have a stack height of 30 feet. This is an increase from the listed minimum height of 27.8 feet. Currently, I don't have data on the new combustor added for the other equipment at the facility.
- 4- Is the diameter increasing or decreasing? This will affect the exhaust velocity. Each of the three (3) new "produced gas flares" have a diameter of 93 inches (7.75 ft). This is a decrease from the listed diameter of 8.29 ft.
- 5 Is the change in control equipment causing a change in the exhaust temperature? According to the APEN it appears the exhaust temperature has remained constant at 1000°F for the new produced gas flares.

Let me know if you need any additional information and if you would like to meet to discuss this further. My calendar is up to date for the week. I am available tomorrow, but out of the office on Friday.

Thanks,

Harrison Slaughter, P.E.
Oil and Gas Permitting Engineer
Stationary Sources Program



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

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harrison.slaughter@state.co.us | www.colorado.gov/cdphe/apcd



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On Wed, Feb 5, 2020 at 6:58 AM Rosendo Majano <rosendo.majano@state.co.us> wrote:

Hi Harrison,

Definitely the first thing we look at to determine if modeling is warranted is the project's emission rate or the change in emission rate in the case of an existing facility, but that is not the only factor. A change in stack parameters (i.e. height, diameter, velocity and temperature) or a change in the location of sources will have an effect on the dispersion of pollutants and consequently will also have an effect on the location and magnitude of the ambient air impacts. Therefore, the kind of changes that you are describing might also trigger a modeling analysis.

I'm sending you attached a copy of the modeling thresholds table from our CO Modeling Guideline (which you probably already have seen). I have highlighted the language that discusses my explanation above.

To make an informed decision about whether modeling is warranted or not, I would check the following information:

- 1- The previous modeling analysis to check the magnitude and location of the highest modeled concentrations in relation to the location of the sources.
- 2- More details about the changes at the stack(s).
- 3- Are the new stacks taller or shorter and by how much?
- 4- Is the diameter increasing or decreasing? This will affect the exhaust velocity.
- 5 Is the change in control equipment causing a change in the exhaust temperature?

Depending on the results of the previous modeling, if they are close or far below the NAAQS, and based on how significant the changes at the source are, we could determine whether modeling is needed or not.

We can look at all this if you have the information available, but maybe tomorrow or Friday since I have some things already scheduled for today. Let me know if any of those days work for you and I will be happy to help.

Rosendo

Rosendo Majano

303-692-3115 | rosendo.majano@state.co.us

On Tue, Feb 4, 2020 at 3:24 PM Slaughter - CDPHE, Harrison <harrison.slaughter@state.co.us> wrote:

Hi Rosendo,

I have a question regarding a modification to a facility (AIRS ID: 057-0051; Permit #16JA1055) that went through modeling in the past. Modeling for CO was conducted and from what I can gather the modeling resulted in stack height and diameter requirements in the permit for the control equipment. Currently, the operator is requesting to replace the some of control equipment which has stack height and diameter requirements in the permit. Is this something that can be done without going through a modeling analysis again? Based on a cursory review of the application, I do not believe the modification would otherwise trigger modeling as a result of the change in emissions.

Let me know if you need any further information in order to evaluate and answer this question. I would be happy to sit down and chat in person if that would be helpful. Thank you for your time and consideration.

Regards,

Harrison Slaughter, P.E.
Oil and Gas Permitting Engineer
Stationary Sources Program



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Pray, Charles N.

From: Laplante, Christopher S.
Sent: Friday, April 01, 2011 9:27 AM
To: Pray, Charles N.; Hancock, Chip
Subject: RE: Williams Willow Creek Plant

Chuck,

If I recall correctly, the increase in SO₂ emissions is based on a stack test that was completed as part of the original Initial Approval permit. The operator had underestimated the amount of SO₂ in the original application. This request to modify the SO₂ limit came in a long time ago with the final approval packet paperwork. I believe this request likely pre dates the effective date of the 1-hr SO₂ standard. If we are to pursue modeling, I would suggest it be limited to compliance with the annual/24-hr SO₂ standards if those were the only standards in effect at the time of the application submittal.

I believe Williams has another application in house to expand this facility significantly with another processing train. It is likely that modification has modeling associated with it which would include the emissions from this SO₂ emissions increase, so the work may already be done. When you speak with Williams on this issue, you might ask them this question. If so, maybe it would be best to combine these permit actions to be processed simultaneously.

Please let me know what you learn and we can discuss our options for moving forward most effectively.

Chris

From: Pray, Charles N.
Sent: Tuesday, March 29, 2011 9:15 AM
To: Laplante, Christopher S.; Hancock, Chip
Subject: Williams Willow Creek Plant

Chris, Chip:

I picked up this permit modification from the O & G stack. Williams has submitted a TV application. They are increasing SO₂ from 0.2 tpy to 60.7 tpy. Will a new Public Notice be required for this IA-Mod?

Chuck

DISTRICT COURT, MOFFAT COUNTY COLORADO 221 West Victory Way, Suite 300 Craig, CO 81625 (970) 824-8254	DATE FILED: July 25, 2018 2:34 PM FILING ID: 49CE3BC58B37B CASE NUMBER: 2018CV30039
Plaintiffs: CENTER FOR BIOLOGICAL DIVERSITY and SIERRA CLUB v. Defendant COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, AIR POLLUTION CONTROL DIVISION	▲ COURT USE ONLY ▲ Case Number:
Robert Ukeiley, Esq., No. 26747 CENTER FOR BIOLOGICAL DIVERSITY 1536 Wynkoop St., Ste. 421 Denver, CO 80202 Phone: (720) 496-8568 E-mail: rukeiley@biologicaldiversity.org Attorney for Plaintiffs	Div:
<p style="text-align: center;">COMPLAINT</p>	

PLAINTIFFS, through counsel, submit the following Complaint:

INTRODUCTION

1. Plaintiffs Center for Biological Diversity and Sierra Club [collectively “Conservation Groups”] bring this suit to overturn Defendant’s, the Colorado Department of Public Health and Environment Air Pollution Control Division (Division), grant of an air pollution Construction Permit for the Collom Expansion of the Colowyo Open Pit Coal Mine in Moffat County, Colorado contrary to the Colorado Air Pollution Prevention and Control Act, C.R.S. § 25-7-101 *et seq.*, and applicable regulations.

2. The Division’s own computer modeling analysis determined that activities at the Collom Expansion of the Colowyo Open Pit Coal Mine (Collom) will cause or contribute to violations of the national ambient air quality standard for nitrogen oxides. Exposure to nitrogen oxides air pollution at levels above the national ambient air quality standard cause “an array of adverse respiratory health effects that range from the onset of respiratory symptoms to hospital

admissions.” 75 Fed. Reg. 6,474, 6,480 (Feb. 9, 2010). People with asthma are particularly susceptible to adverse health impacts from exposure to nitrogen dioxide air pollution. *Id.* at 6,482.

3. The Division is only allowed to issue a Construction Permit if the source or activity will meet any applicable ambient air quality standard. C.R.S. § 25-7-114.5(7)(a)(III); 5 CCR §§ 1001-5:3b:III.D.1; F.1. Therefore, the Division issued the Collom Construction Permit contrary to law. C.R.S. § 24-4-106(7).

4. In addition, Collom has a potential to emit air pollution above the major source threshold of 250 tons per year. Sources with potential to emit above the major source threshold must obtain a prevention of significant deterioration permit. C.R.S. § 25-7-201(1)(c). However, the Construction Permit the Division issued to the Collom Expansion is a minor source construction permit rather than a major source Prevention of Significant Deterioration permit. Therefore, the Division issued the Collom Construction Permit contrary to law. C.R.S. § 24-4-106(7).

PARTIES

5. Plaintiff **CENTER FOR BIOLOGICAL DIVERSITY** (Center) is a non-profit conservation organization with an office in Denver, Colorado. The Center for Biological Diversity’s mission is to ensure the preservation, protection, and restoration of biodiversity, native species, ecosystems, public lands and waters, and public health through science, policy, and environmental law. Based on the understanding that the health and vigor of human societies and the integrity and wildness of the natural environment are closely linked, the Center for Biological Diversity is working to secure a future for animals and plants hovering on the brink of extinction, for the ecosystems they need to survive, and for a healthy, livable future for all of us.

6. Plaintiff **SIERRA CLUB** is a non-profit conservation organization with an office in Denver, Colorado. Sierra Club’s mission is to explore, enjoy, and protect the wild places of the Earth; to practice and promote the responsible use of the Earth’s resources and ecosystems; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. Sierra Club performs this mission through advocacy, litigation, and educational outreach to its members and state chapters. Sierra Club and its members are greatly concerned about the effects of air pollution on human health and the environment and have a long history of involvement in activities related to air quality.

7. The Conservation Groups submitted comments on the Division’s draft version of the Collom Construction Permit during the public comment period. Thus, as participants in the public comment process, the Conservation Groups having standing for purposes of seeking review of the Division’s final Collom Construction Permit. C.R.S. § 25-7-114.5(11).

8. The Conservation Groups' members live, work, recreate, and conduct educational, research, advocacy, and other activities in and around Moffat County, Colorado in areas where pollution from the Collom Expansion and the Craig Generating Station, which will burn coal from Collom Expansion, harms these activities. The Conservation Groups' members have concrete plans to continue living in these areas and engaging in these activities. The Defendant's issuance of the Collom Construction Permit causes the Conservation Groups and their members continuing concern about exposure to harmful pollution. The Conservation Groups and their members' interests have been, are being, and will continue to be irreparably harmed by the Defendant's issuance of the Collom Construction Permit.

9. The violations alleged in this Complaint have injured and continue to injure the interests of the Conservation Groups and their members. This injury is traceable to the Defendant's permit issuance, which is final agency action under the Colorado Air Pollution Prevention and Control Act. Granting the requested relief would redress these injuries by compelling the Defendant to take action as required by the Colorado Air Pollution Prevention and Control Act and applicable regulations.

10. Defendant **COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT** ("CDPHE") is the Colorado regulatory Department with jurisdiction and authority to implement the Colorado Air Pollution Prevention and Control Act, C.R.S. § 25-7-101, *et. seq.* CDPHE's mission is to protect and preserve the health and environment of the people of Colorado. CDPHE includes the Air Quality Control Division ("Division"), which administers the State air quality programs. The Division has the jurisdiction, authority, and duty to grant or deny applications for air pollution permits.

JURISDICTION AND VENUE

11. This Court has jurisdiction under C.R.S. § 24-4-106 (State Administrative Procedure Act ("State APA")), C.R.S. § 25-7-120 (judicial review provision of the Colorado Air Pollution Prevention and Control Act), and as a Court of general jurisdiction under the Colorado Constitution.

12. Venue is proper pursuant to C.R.S. § 25-7-120(3), because the air pollution source affected by the Defendant's final permit action is located in this district.

LEGAL BACKGROUND

13. Colorado's statutory and regulatory requirements regarding the permitting of sources of air pollution derive from the federal Clean Air Act.

14. The Clean Air Act aims "to protect and enhance the quality of the Nation's air resources." 42 U.S.C. § 7401(b)(1). To help meet this goal, the Clean Air Act requires States to have a permitting program to authorize the construction of new sources of air pollution.

15. Under this permitting regime, there are different types of permits with different requirements.

16. Proposed sources of air pollution which have a potential to emit over 250 tons per year of a pollutant regulated under the Clean Air Act must obtain a major source construction permit called a Prevention of Significant Deterioration permit.

17. If a proposed source of air pollution has a potential to emit below 250 tons per year, then it may obtain a minor source construction permit.

18. In determining a proposed source's potential to emit, air pollution is broken into two categories; fugitive emissions and non-fugitive emissions. Non-fugitive emissions are those emissions which are discharged out of a discrete conveyance such as a smoke stack or vent. Fugitive emissions are those emissions which are not discharged out of a discrete conveyance, such as small particles of coal which are blow off of a pile of coal by the wind or by mechanical activities such as moving coal with a front loader.

19. Certain categories of sources of air pollution must include both fugitive and non-fugitive emissions when calculating their potential to emit pollution. This includes sources which are subject to the New Source Performance Standard for Coal Preparation Plants.

20. Furthermore, Colorado regulations provide that the "source" includes any building, structure, facility, or installation that belongs to the same major group in the 1987 Standard Industrial Classification Manual. 5 CCR §§ 1001-5:3b:III.A, 1.B.43. Coal mines and coal preparation plants are both in the same Major Group 12.

21. In addition, regardless of what type of permit a proposed source of air pollution is trying to obtain, a core requirement for obtaining a permit to pollute the air is that the proposed source of air pollution will not cause or contribute to a violation of any national ambient air quality standard. C.R.S. § 25-7-114.5(7)(a)(III); 5 CCR §§ 1001-5:3b:III.D.1; F.1; 42 U.S.C. § 7410(a)(2)(C).

FACTUAL BACKGROUND

22. The Colowyo coal mine is located near the township of Axial, about 28 miles south of Craig, in Moffat and Rio Blanco Counties, Colorado. Colowyo coal mine is owned, through intermediary companies, by Tri-State Generation and Transmission Association, Inc. (Tri-State).

23. The proposed Collom expansion of the Colowyo mine would be an open pit coal mine with a total land area of approximately 12,450 acres. In addition to the coal mine itself, the Collom expansion includes installation of a new coal crusher, rock crusher for haul road materials, haul roads, hoppers, storage bins, rock screening, various coal piles and large trucks and dozers to move the coal.

24. The Colowyo coal mine mainly supplies coal to Tri-State's Craig power plant.¹ The Craig power plant is a coal-fired power plant consisting of three boilers, or units, which have

¹ Tri-State operates the Craig power plant. Units 1 and 2 at Craig are owned by PacifiCorp, Platte River Power Authority, Salt River Project, Tri-State and Xcel. PacifiCorp does not serve customers in Colorado. It serves

been identified as Units 1, 2, and 3. However, currently Unit 1 is required to be retired by December 31, 2025. The retirement of Unit 1 is consistent with the nationwide trend away from coal-fired electric generation in the last couple of years because other forms of electric generation are less expensive and thus save ratepayers money.

25. Almost all of the coal in the Collom expansion is owned by the Federal Government.

26. The U.S. Fish and Wildlife Service has determined that activities related to the Colowyo mine are likely to impact endangered species such as the Colorado pikeminnow, razorback sucker, humpback chub and bonytail.

27. On December 28, 2017, the Division issued a proposed minor source construction permit for the Collom mine expansion and a request for public comments on the proposed permit and supporting analysis.

28. On February 28, 2018, the Conservation Groups, on their own behalf and on behalf of the tens of thousands of their members who will be physically harmed by the pollution from the Collom expansion, timely submitted comments.

29. In addition, approximately 810 people submitted comments to the Division opposing the issuance of a minor source construction permit for the Collom mine expansion.

30. The Division rejected all of these comments and on June 22, 2018 issued the final minor source Construction Permit for the Collom Expansion to the Colowyo Coal Mine. The number for this permit is 16 MF1324F.

31. The Division also issued a “response” to the Conservation Groups’ comments. However, this response did not substantively respond to the Conservation Groups’ comments. Rather, it mainly repeated what the Division had said in its analysis prior to issuing the draft permit.

FIRST CLAIM FOR RELIEF

(Issuing Minor Source Permit to a Source with a Potential to Emit Air Pollution over the Major Source Threshold)

32. Plaintiffs reallege the previous paragraphs and incorporate them by reference as if fully set forth herein.

customers in California, Oregon, Washington, Utah, Wyoming and Idaho. Platte River Power Authority provides wholesale power and transmission to the municipally owned utilities in Estes Park, Fort Collins, Longmont and Loveland. The Salt River Project does not serve customers in Colorado. It serves the greater Phoenix metropolitan area. Despite its name, Tri-State serves customers in Colorado, Nebraska, New Mexico and Wyoming. Xcel serves customers in Colorado and other states and is headquartered in Minnesota.

33. Sources of air pollution with a potential to emit pollution above the major source threshold of 250 tons per year must obtain a major source Prevention of Significant Deterioration construction permit. C.R.S. § 25-7-201(1)(c).

34. The Collom expansion of the Colowyo coal mine has the potential to emit over 250 tons per year of pollutants regulated under the Clean Air Act.

35. However, the Division issued Collom a minor source construction permit rather than a major source Prevention of Significant Deterioration construction permit.

36. Therefore, the Division issued the Collom permit contrary to law.

SECOND CLAIM FOR RELIEF

(Issuing Construction Permit to a Source which will cause or contribute to a nitrogen dioxide national ambient air quality standard violation)

37. Plaintiffs reallege the previous paragraphs and incorporate them by reference as if fully set forth herein.

38. The Division may not issue an air pollution Construction Permit to a proposed source of air pollution which will cause or contribute to a violation of a national ambient air quality standard. C.R.S. § 25-7-114.5(7)(a)(III); 5 CCR §§ 1001-5:3b:III.D.1; F.1.

39. The Collom expansion of the Colowyo Coal Mine will cause or contribute to a violation of the 2010 one-hour averaging time national ambient air quality standard for nitrogen dioxide.

40. Therefore, the Division issued the Collom permit contrary to law.

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the Court:

A. Vacate minor source Construction Permit 16MF1324F which the Division issued for the Collom Expansion to the Colowyo Coal Mine;

B. Remand the matter to the Division with instructions to require the Division to not issue a permit unless the owner of the Collom Expansion submits a major source Prevention of Significant Deterioration construction permit application which contains provisions to ensure that the Collom Expansion will not cause or contribute to a violation of any national ambient air quality standard; and

C. Grant such other relief as the Court deems just and proper

Respectfully submitted,

/s/ Robert Ukeiley
Robert Ukeiley (#26747)
Senior Attorney – Environmental Health
Center for Biological Diversity
1536 Wynkoop St., Ste. 421
Denver, CO 80202
rukeiley@biologicaldiversity.org
(720) 496-8568

Dated: July 25, 2018

Address of Plaintiffs:

Center for Biological Diversity
P.O. Box 710
Tucson, AZ 85702-0710

Sierra Club
2101 Webster St., Ste. 1300
Oakland, CA 94612

**Fwd: MMM Monaghan - air modeling status**

1 message

Rosendo Majano

Thu, Mar 12, 2020 at 8:28 AM

To: "Brickey, Jonathan"

Cc: Emmett Malone

Bcc: Bradley Rink - CDPHE, "Reynolds - CDPHE, DeVondria"

Jonathan,

Your email below was forwarded to me. I know that you are following instructions from your supervisors when not requesting a 24-hr PM2.5 NAAQS compliance demonstration, but I would fail to do my job if I don't inform you that the Martin Marietta Monaghan facility submitted a screening modeling analysis for CO, PM10, and PM2.5 last year (see the attached modeling review report) and that such analysis resulted in a modeled violation of the 24-hr PM2.5 NAAQS.

Because the previous results are from a screening analysis, the next recommended step should be to request a refined modeling analysis to verify NAAQS compliance per CO Regulation 3, Part B §III.B.5.d and §III.D.1.c. That's what I would suggest.

Once again, I understand the constraints of your situation, but my role in this permit application is to verify NAAQS compliance, so I feel compelled to inform you of the pre-existing PM2.5 NAAQS compliance issue at this facility.

Thanks,

Rosendo Majano

Permit Modeling Work Lead

Modeling and Emissions Inventory Unit



COLORADO
Air Pollution Control Division

Department of Public Health & Environment

----- Forwarded message -----

From: **Rink - CDPHE, Bradley**

Date: Wed, Mar 11, 2020 at 1:51 PM

Subject: Fwd: MMM Monaghan - air modeling status

To: Rosendo Majano, Emmett Malone, Reynolds - CDPHE, DeVondria

fyi

Bradley Rink

Technical Services Program, Air Pollution Control Division

emailsig.png

----- Forwarded message -----

From: **Brickey - CDPHE, Jonathan**

Date: Wed, Mar 11, 2020 at 1:45 PM

Subject: Re: MMM Monaghan - air modeling status

To: Anna Unruh

Cc: Hanna Warlick, Erin Kunkel, Bradley Rink - CDPHE

Anna,

After consulting with some higher-ups, I agree that modeling for the 24-hour PM2.5 standard will not be required in this case.

Unfortunately, we don't have a specific written policy I can point to that says "you can always ignore the daily PM2.5 modeling threshold", but we do it on more of a case-by-case basis. In the case of Monaghan, it's nearly a half mile from the nearest residential area (and predominant wind patterns in the area are in the opposite direction), the topography of the area is very flat, and I haven't heard any community objections, so I don't have an issue with overlooking this particular PM2.5 modeling.

Thanks,

Jonathan Brickey, PE

Permit Engineer

Construction Permits Unit



COLORADO
Air Pollution Control Division

Department of Public Health & Environment

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On Wed, Mar 11, 2020 at 12:09 PM Anna Unruh [REDACTED] wrote:

Hi Jonathan,

I've received guidance from multiple non-oil & gas permit engineers in the last year or so that the agency only looks at the 5 tpy threshold for PM2.5, unless there are special circumstances (e.g., high expectation of comments from nearby residents). The first time I heard it, I was surprised, so I've brought it up with other permit engineers (basically anytime I've had the chance) and was told the same thing. Based on this guidance, we did not submit daily PM2.5 modeling.

Thanks,

Anna

Anna Unruh
Senior Consultant

Trinity Consultants

1391 N Speer Blvd Suite 350 | Denver, CO 80204

From: Brickey - CDPHE, Jonathan [REDACTED]
Sent: Wednesday, March 11, 2020 10:06 AM
To: Anna Unruh [REDACTED]
Subject: MMM Monaghan - air modeling status

Anna,

I was going over the Monaghan modeling with Bradley, and I wanted to give you a quick update.

All the emission factors/calculations look good. Bradley was going to make some slight changes to how the emission types were binned, but he said any changes to the final outcome will be minimal, nothing to worry about.

However, your analysis doesn't seem to address the 24-hour PM2.5 standard. Table 7-1 notes that the annual PM2.5 emissions are below the modeling threshold, but makes no mention of the short term PM2.5 NAAQS (35 ug/m3). Considering the facility-wide daily PM10 emissions in Table D-1 show 321.63 ppd of emissions, it's unlikely that facility-wide daily PM2.5 emissions will be below the modeling threshold of 11 ppd, but I don't see any daily total calculated. What was your reasoning for leaving out daily PM2.5 from the modeling?

Thanks,

Jonathan Brickey, PE
Permit Engineer
Construction Permits Unit



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

[REDACTED]
jonathan.brickey@state.co.us | www.colorado.gov/cdphe/apcd

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 **Martin Marietta Monaghan Facility - Modeling Review Report 03082019.pdf**
807K



Re: MMM Monaghan - air modeling status

1 message

Rosendo Majano

Thu, Mar 12, 2020 at 7:47 AM

To: "Rink - CDPHE, Bradley"

Cc: "Reynolds - CDPHE, DeVondria", Emmett Malone

Regarding the email head below:

From CO Regulation 3, Part B §III.D.1.c

"... the Division shall grant the permit if it finds that: The proposed source or activity will not cause an exceedance of any National Ambient Air Quality Standards;"

From CDPHE's 03/06/2020 press release distributed among all employees:

"Our rules and regulations exist for a reason: they protect Coloradans' health and the environment that we all cherish, so compliance is not an option; it's an imperative," said Garry Kaufman, director of the Colorado Air Pollution Control Division.

The modeling analysis submitted by the Monaghan facility for this same permit application already resulted in a 24-hr PM2.5 NAAQS modeled violation.

Rosendo Majano

----- Forwarded message -----

From: Brickey - CDPHE, Jonathan

Date: Wed, Mar 11, 2020 at 1:45 PM

Subject: Re: MMM Monaghan - air modeling status

To: Anna Unruh

Cc: Hanna Warlick, Erin Kunkel, Bradley Rink - CDPHE

Anna,

After consulting with some higher-ups, I agree that modeling for the 24-hour PM2.5 standard will not be required in this case.

Unfortunately, we don't have a specific written policy I can point to that says "you can always ignore the daily PM2.5 modeling threshold", but we do it on more of a case-by-case basis. In the case of Monaghan, it's nearly a half mile from the nearest residential area (and predominant wind patterns in the area are in the opposite direction), the topography of the area is very flat, and I haven't heard any community objections, so I don't have an issue with overlooking this particular PM2.5 modeling.

Thanks,

Jonathan Brickey, PE
Permit Engineer
Construction Permits Unit



COLORADO
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On Wed, Mar 11, 2020 at 12:09 PM Anna Unruh wrote:

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I've received guidance from multiple non-oil & gas permit engineers in the last year or so that the agency only looks at the 5 tpy threshold for PM2.5, unless there are special circumstances (e.g., high expectation of comments from nearby residents). The first time I heard it, I was surprised, so I've brought it up with other permit engineers (basically anytime I've had the chance) and was told the same thing. Based on this guidance, we did not submit daily PM2.5 modeling.

Thanks,

Anna

Anna Unruh
Senior Consultant

Trinity Consultants

1391 N Speer Blvd Suite 350 | Denver, CO 80204

From: Brickey - CDPHE, Jonathan [REDACTED]
Sent: Wednesday, March 11, 2020 10:06 AM
To: Anna Unruh [REDACTED]
Subject: MMM Monaghan - air modeling status

Anna,

I was going over the Monaghan modeling with Bradley, and I wanted to give you a quick update.

All the emission factors/calculations look good. Bradley was going to make some slight changes to how the emission types were binned, but he said any changes to the final outcome will be minimal, nothing to worry about.

However, your analysis doesn't seem to address the 24-hour PM2.5 standard. Table 7-1 notes that the annual PM2.5 emissions are below the modeling threshold, but makes no mention of the short term PM2.5 NAAQS (35 ug/m3). Considering the facility-wide daily PM10 emissions in Table D-1 show 321.63 ppd of emissions, it's unlikely that facility-wide daily PM2.5 emissions will be below the modeling threshold of 11 ppd, but I don't see any daily total calculated. What was your reasoning for leaving out daily PM2.5 from the modeling?

Thanks,

Jonathan Brickey, PE
Permit Engineer
Construction Permits Unit



[REDACTED]

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Oxford Asphalt Plant

Rosendo Majano [REDACTED]

Wed, Feb 19, 2020 at 8:23 AM

To: Aaron Moseley - CDPHE [REDACTED]

Cc: Emmett Malone [REDACTED], "Reynolds - CDPHE, DeVondria" [REDACTED]

Hi Aaron,

I was discussing with DeVondria yesterday the Oxford Asphalt Plant modeling analysis, and there are some issues that we need to bring to your attention.

1- Particulate matter modeling.

The modeling report that was submitted earlier this month has the following language:

In an email dated May 2, 2019, Mr. Moseley of the CDPHE indicated that, based on his calculations, CO and particulate matter (PM) must be modeled. He also indicated in this email communication that he would perform the SCREEN3 modeling for the particulate sources, and that Aggregate Industries would only be responsible for the CO modeling.

SCREEN3 is an outdated program that is no longer an EPA regulatory model for permitting purposes. If I'm not mistaken it was replaced by AERSCREEN in early 2011, so I would not recommend to use SCREEN3 results to support a permitting action. Moreover, both SCREEN3 and AERSCREEN are one-source models, meaning that you can only model once source at a time, so there is no way to represent at the same time all the sources of fugitive dust, which typically are responsible for a much larger fraction of the total particulate matter emissions. Hence our long standing recommendation to use AERMOD when modeling this type of facilities.

Currently the consultants have not provided the necessary information that would allow us to model the fugitive dust sources, so our recommendation is to request the applicant to submit the particulate matter modeling in AERMOD for us to review. However, this is your decision. Please let us know how you would like to proceed.

2- Stack parameters of the drum mixer.

The exhaust velocity of the drum mixer used in the modeling analysis is of 440.9 m/s, which seems quite high. Has the consultant sent you specification sheets for this unit or do you know from experience if this range of exhaust velocity is normal for a drum mixer?

3- Pb emissions.

This facility is reporting Pb emissions of 5.2 lb/day and indicating that the requested operating limit is 5000 hours per year. At this emission rate the facility will exceed EPA's 0.5 tpy Pb emissions threshold for monitoring, so we would need to notify the Division's particulate monitoring group. This daily emission rate also exceeds by far the modeling threshold in our CO Modeling Guideline, so we would also recommend that Pb modeling be submitted as well. Alternatively, we could do that modeling analysis in house, but in any case, we would ask you for confirmation if that daily emission rate is correct and if this facility will have the 5000 hrs/year restriction in the permit. Also, could you please confirm if there will be any restriction in the daily hours of operation?

4- APENs and PA.

Could you please provide us with a copy of the APENs and the preliminary analysis for this facility?

Thanks in advance for your help!

Rosendo Majano [REDACTED]



Oxford Asphalt Plant

Rosendo Majano [REDACTED]

Thu, Feb 27, 2020 at 11:35 AM

To: "Reynolds - CDPHE, DeVondria [REDACTED]"

Hi DeVondria,

I talked to Aaron about the issues with the Oxford Asphalt Plant, and he said he would get back to us with the information: APENs, PA, confirmation of the Pb emissions, and high velocity of the exhaust from the drum mixer.

The one issue for which he gave me a definitive answer is the modeling of the PM emissions with SCREEN3. I explained that this is no longer a regulatory model and he told me that he was instructed to do use that model, so that's what he is going to do.

I would recommend to include a statement indicating that SCREEN3 is no longer a regulatory model and that those results can't be used for a NAAQS compliance determination. I would also recommend to include an explanation about that being a single-source model and that fugitive PM emissions can't be included in the analysis.

Finally, I recommend that you place this application on hold until you get all the necessary information from Aaron.

We can discuss this in more detail but I just wanted to let you know about these answers.

Thanks,

Rosendo Majano
[REDACTED]

H1H and McCormick

4 messages

Malone - CDPHE, Emmett

To: Rosendo Majano - CDPHE

Cc: "Gordon.Pierce@state.co.us"

Bradley Rink - CDPHE

DeVondria Reynolds - CDPHE

Tue, Sep 15, 2020 at 1:26 PM

Hi,

Today's meeting with management is over. It was decided to use option 3 for the H1H question. The variation of this option chosen is, when there is not representative meteorological data the two most representative meteorological data sets available for the site will be provided to the applicant/consultant. Both data sets will be modeled. The data set with the highest impacts will be used for the design concentration. The design concentration will be the form of the standard.

I will let the industry workgroup know what was decided Sep 30. If there are no major concerns raised by industry we will implement the new policy Oct 1.

On the McCormick Asphalt Plant there was no conclusive answer on how to handle this type of situation other than we will continue to talk about it in the quarterly meetings I have with management. In McCormicks case since the owner was open to raising the stacks I was asked to ask him to do so. But before doing so it was thought that we should do some quick model runs to get an idea how high the stacks would need to be raised to make sure we are not asking something that is not practical. I have asked DeVondria to do some runs to get an idea of how high the stacks need to be.

I called Steve McCormick and let him know what was going on and he was OK with the approach.

Let me know if you have any questions.

Emmett Malone
Supervisor
Modeling and Emissions Inventory Unit
Technical Services Program
Air Pollution Control Division
Colorado Department of Public Health and Environment
APCD-TS-B1
4300 Cherry Creek Drive South
Denver, CO 80246-1530

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Rosendo Majano

To: "Malone - CDPHE, Emmett"

Cc: Bradley Rink - CDPHE

DeVondria Reynolds - CDPHE

"Gordon.Pierce@state.co.us"

Tue, Sep 15, 2020 at 3:15 PM

I was taking a look at all the information and it seems to me that the issues with the McCormick plant are not only with its design, but also with its location. There is an ethanol plant located about a kilometer away that is causing modeled violations of the 24-hr PM2.5 NAAQS and that might also be causing high 1-hr NO2 impacts. If that's the case raising the stacks at McCormick might not solve the problem.

My recollection is that no nearby sources were included in the 1-hr NO2, and if that's the case the impacts from McCormick don't have to be that high to contribute to modeled violations of these standards.

There is also the problem that the modeling for PM did not include any fugitive emissions. McCormick submitted modeling for Carbon Monoxide only, which means that they only modeled point sources, so they did not provide any information that would allow us to model fugitives (e.g. haul road traffic, materials handling, etc.).

What has been modeled so far is the PM emissions from the stacks, and the 24-hr PM2.5 impacts from those emissions alone were fairly high, although still below the corresponding NAAQS. That's why the draft table of results includes the following conclusion: *Although a complete analysis could not be completed for PM fugitive emissions it is possible that the facility will contribute to a model violation of the PM2.5 NAAQS standard if additional fugitive emissions are added to the modeling including background.*

In my opinion, raising the stacks might be a solution only for the 1-hr and 3-hr SO2 NAAQS modeled violations (unless the ethanol plant is burning coal or other fuel with high sulfur content), but for 1-hr NO2 and 24-hr PM2.5 I think that full cumulative analyses would be needed for to determine if the McCormick plant would contribute to modeled violations.

The test runs with different stack heights will give us only partial answers and will leave us with the uncertainty of what the cumulative impacts will be, so it might be better if we request from the applicant to submit full modeling analyses for all the troubled pollutants and averaging periods. That way we will have certainty of where this facility stands in terms of NAAQS compliance.

Rosendo Majano

[Quoted text hidden]

Reynolds - CDPHE, DeVondria

To: Rosendo Majano

Cc: "Malone - CDPHE, Emmett"

Bradley Rink - CDPHE

Tue, Sep 15, 2020 at 5:16 PM

All,

Please see the attached document with my findings.

Please let me know if you have any questions or comments.

Rosendo,

I requested nearby source inventory from David and both the previous modeling results and these include nearby sources for all pollutants, you will see that if the 'HMA' stack is raised to 20m then cumulative modeling is no longer required for CO (the only pollutant they were instructed to model, but all other pollutants that they were not instructed to model will require cumulative modeling *ironic I know...)

I do agree that a complete analysis should be done especially for PM emissions but I do not think we should be doing it for them, at all. The applicant should resubmit their own modeling for testing out raising stacks, additional PM emissions, etc.

Thanks,

DeVondria Reynolds, MS
Air Quality Modeler
Modeling and Emissions Inventory Unit
Technical Services Program



COLORADO
Air Pollution Control Division
Department of Public Health & Environment

4300 Cherry Creek Drive South, Denver, CO 80246-1530

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[Quoted text hidden]

Reynolds - CDPHE, DeVondria

To: Rosendo Majano

Cc: "Malone - CDPHE, Emmett

, Bradley Rink - CDPHE

"Gordon,Pierce@state.co.us"



DeVondria Reynolds, MS

Air Quality Modeler

Modeling and Emissions Inventory Unit

Technical Services Program



COLORADO

Air Pollution Control Division

Department of Public Health & Environment

Learn more about COVID-19 <https://www.colorado.gov/pacific/cdphe/apcd-covid-19>

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[Quoted text hidden]



McCormick Asphalt Plant

Malone - CDPHE, Emmett [redacted] Wed, Aug 26, 2020 at 2:57 PM
To: Matt Burgett - CDPHE [redacted]
Cc: DeVondria Reynolds - CDPHE [redacted] Bradley Rink - CDPHE [redacted] Rosendo Majano - CDPHE [redacted]

Hi Matt,

I wanted to give you a heads up. McCormick Asphalt Plant was told to only model CO. When the permit modelers reviewed the application they became concerned about other pollutants because of the nearby sources, low stack heights, and the dirty fuel the plant plans on using.

As I understand it the plant causes or contributes to exceedances of the NAAQS for:

PM2.5 24hr
SO2 8hr
SO2 1hr
NO2 1hr

They are using representative meteorological data so these exceedances are using the form of the standard not the H1H. I have attached tables DeVondria has created showing the results. PM was not modeled with fugitive emissions therefore a refined analysis may have even higher impacts. The tables shows that the exceedances are significantly over the NAAQS.

My question becomes do we (Air Division) want to have the source address these impacts or have DeVondria to write her report saying the source was only required to model CO but the source contributes to or causes modeled exceedances of the NAAQS for

PM2.5 24hr
SO2 8hr
SO2 1hr
NO2 1hr

Attached are some tables showing the modeling results.

Let me know what you think.
Emmett Malone
Supervisor
Modeling and Emissions Inventory Unit
[Technical Services Program](#)
Air Pollution Control Division
Colorado Department of Public Health and Environment
APCD-TS-B1
[4300 Cherry Creek Drive South](#)
[Denver, CO 80246-1530](#)
[redacted]

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McCormick Asphalt NAAQS Analysis Summary-2.docx
4810K



Re: Asphalt Specialties - Central Plant

1 message

Moseley - CDPHE, Aaron [REDACTED]

Thu, Oct 10, 2019 at 4:53 PM

To: Rosendo Majano [REDACTED]

Cc: "Reynolds - CDPHE, DeVondria" [REDACTED], Emmett Malone [REDACTED], Chip Hancock - CDPHE [REDACTED]

Rosendo,

Per Chip's guidance, for this facility, SSP is only asking for a demonstration of compliance with the carbon monoxide 1-hr and 8-hr NAAQS.

Thanks, stay warm!

Aaron Moseley
Permit Engineer

Stationary Sources Program



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On Thu, Oct 10, 2019 at 2:12 PM Rosendo Majano [REDACTED] wrote:

Hi Aaron,

We have started the review of the subject application and found that the facility submitted a NAAQS compliance demonstration only for carbon monoxide despite having emissions rates of PM10, PM2.5, SO2 and NOx, that exceed the corresponding short-term modeling thresholds.

Could you please confirm for which pollutants-averaging periods did the Stationary Sources Program request a NAAQS compliance demonstration?

Thanks!

Rosendo

Rosendo Majano
[REDACTED]

**Fwd: MMM Monaghan - air modeling status**

1 message

Rosendo Majano

Thu, Mar 12, 2020 at 8:28 AM

To: "Brickey, Jonathan"

Cc: Emmett Malone

Bcc: Bradley Rink - CDPHE, "Reynolds - CDPHE, DeVondria"

Jonathan,

Your email below was forwarded to me. I know that you are following instructions from your supervisors when not requesting a 24-hr PM2.5 NAAQS compliance demonstration, but I would fail to do my job if I don't inform you that the Martin Marietta Monaghan facility submitted a screening modeling analysis for CO, PM10, and PM2.5 last year (see the attached modeling review report) and that such analysis resulted in a modeled violation of the 24-hr PM2.5 NAAQS.

Because the previous results are from a screening analysis, the next recommended step should be to request a refined modeling analysis to verify NAAQS compliance per CO Regulation 3, Part B §III.B.5.d and §III.D.1.c. That's what I would suggest.

Once again, I understand the constraints of your situation, but my role in this permit application is to verify NAAQS compliance, so I feel compelled to inform you of the pre-existing PM2.5 NAAQS compliance issue at this facility.

Thanks,

Rosendo Majano

Permit Modeling Work Lead

Modeling and Emissions Inventory Unit



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Air Pollution Control Division
Department of Public Health & Environment

----- Forwarded message -----

From: **Rink - CDPHE, Bradley**

Date: Wed, Mar 11, 2020 at 1:51 PM

Subject: Fwd: MMM Monaghan - air modeling status

To: Rosendo Majano, Emmett Malone, Reynolds - CDPHE, DeVondria

fyi

Bradley Rink

Technical Services Program, Air Pollution Control Division

emailsig.png

----- Forwarded message -----

From: **Brickey - CDPHE, Jonathan**

Date: Wed, Mar 11, 2020 at 1:45 PM

Subject: Re: MMM Monaghan - air modeling status

To: Anna Unruh

Cc: Hanna Warlick, Erin Kunkel, Bradley Rink - CDPHE

Anna,

After consulting with some higher-ups, I agree that modeling for the 24-hour PM2.5 standard will not be required in this case.

Unfortunately, we don't have a specific written policy I can point to that says "you can always ignore the daily PM2.5 modeling threshold", but we do it on more of a case-by-case basis. In the case of Monaghan, it's nearly a half mile from the nearest residential area (and predominant wind patterns in the area are in the opposite direction), the topography of the area is very flat, and I haven't heard any community objections, so I don't have an issue with overlooking this particular PM2.5 modeling.

Thanks,

Jonathan Brickey, PE

Permit Engineer

Construction Permits Unit



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