



March 30, 2021

U.S. Environmental Protection Agency  
Office of Inspector General Sean W. O'Donnell  
1200 Pennsylvania Avenue, N.W. (2410T)  
Washington, DC 20460

**RE:** Request for Review of Intentional Non-Enforcement of National Ambient Air Quality Standards by Colorado Department of Public Health & Environment Pursuant to State Implementation Plan Under the Clean Air Act, 42 U.S.C. § 7401 *et seq.*

Dear Inspector General O'Donnell:

We, the undersigned, are employees of the Colorado Department of Public Health & Environment (CDPHE), which is responsible for the State Implementation Plan (SIP) incorporated by the U.S. Environmental Protection Agency (EPA) in its implementation of the Clean Air Act (CAA).<sup>1</sup> We are employed by CDPHE's Air Pollution Control Division (APCD), which has specific responsibility for the enforcement of Colorado's duties under the National Ambient Air Quality Standards (NAAQS) program.<sup>2</sup>

On March 15, 2021, CDPHE issued a blanket prohibition on air quality modeling staff from reviewing NAAQS compliance for hourly Nitrogen Dioxide (NO<sub>2</sub>) and Sulfur Dioxide (SO<sub>2</sub>) limits, 3-hour standards for SO<sub>2</sub>, and daily standards for particulate matter smaller than 2.5 micrometers (PM<sub>2.5</sub>). The undersigned are the staff-level employees with responsibility for conducting modeling of emissions from new or modified stationary sources of NAAQS criteria pollutants and have been ordered by our management to not perform certain of those legally required duties. We request that your office review the following alleged instances of violations of law, mismanagement, and abuse of authority by CDPHE, particularly a new policy set by the office which prohibits employees from conducting legally mandated modelling of air pollution from new stationary sources of air pollution.

Unlawful acts and omissions by CDPHE include -

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<sup>1</sup> 42 U.S.C. § 7401 *et seq.*

<sup>2</sup> 42 U.S.C. § 7410 (also known as "section 110" for the section of the Clean Air Act it corresponds to)

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- Suppressing information demonstrating that pending permits would lead to modeled violations of NAAQS;
- Approving air quality permits which violate NAAQS; and
- Ordering modeling staff to ignore modeled NAAQS violations which would conflict with nonbinding agency guidance documents.

## I. Applicable Federal Law

The CAA requires states to establish and implement SIPs for “implementation, maintenance, and enforcement” of primary and secondary National Ambient Air Quality Standards (NAAQS).<sup>3</sup> Each SIP must, among other requirements include:

- “enforceable emission limitations” and “appropriate devices, methods, systems, and procedures necessary to monitor, compile, and analyze data on ambient air quality”<sup>4</sup>
- “adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan”<sup>5</sup>
- “provide for the performance of such air quality modeling as the Administrator may prescribe for the purpose of predicting the effect on ambient air quality of any emissions of any air pollutant for which the Administrator has established a national ambient air quality standard.”<sup>6</sup>

In addition to the statute, EPA has promulgated a sophisticated regulatory scheme governing the requirements of SIPs.<sup>7</sup> Specifically:

“Each plan must set forth legally enforceable procedures that enable the State or local agency to determine whether the construction or modification of a facility, building, structure or installation, or combination of these will result in... interference with attainment or maintenance of a national standard in the State in which the proposed source (or modification) is located or in a neighboring State.”<sup>8</sup>

A SIP must include means for a state to prevent the construction or modification of a new stationary source if it “will interfere with the attainment or maintenance of a national standard.”<sup>9</sup>

Regarding air quality modeling, the procedures in a SIP “must discuss the air quality data and the dispersion or other air quality modeling used to meet the requirements of this subpart. All

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<sup>3</sup> 42 U.S.C. § 7410(a)(1).

<sup>4</sup> § 7410(a)(2)

<sup>5</sup> § 7410(a)(2)(E)

<sup>6</sup> § 7410(a)(2)(K)

<sup>7</sup> 40 C.F.R. § 51.160

<sup>8</sup> § 51.160(a)(2)

<sup>9</sup> § 51.160(b)(2)

applications of air quality modeling involved in this subpart shall be based on the applicable models, data bases, and other requirements specified in appendix W of this part (Guideline on Air Quality Models).”

EPA has issued NAAQS for six “criteria pollutants” which are measured by averaging the concentration of a given pollutant over a given period of time to determine whether it exceeds primary or secondary standards. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The NAAQS standards are:<sup>10</sup>

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form	
<a href="#">Carbon Monoxide (CO)</a>	primary	8 hours	9 ppm	Not to be exceeded more than once per year	
		1 hour	35 ppm		
<a href="#">Lead (Pb)</a>	primary and secondary	Rolling 3 month average	0.15 µg/m <sup>3</sup> <sup>(1)</sup>	Not to be exceeded	
<a href="#">Nitrogen Dioxide (NO<sub>2</sub>)</a>	primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	primary and secondary	1 year	53 ppb <sup>(2)</sup>	Annual Mean	
<a href="#">Ozone (O<sub>3</sub>)</a>	primary and secondary	8 hours	0.070 ppm <sup>(3)</sup>	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	
<a href="#">Particle Pollution (PM)</a>	PM <sub>2.5</sub>	primary	1 year	12.0 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m <sup>3</sup>	annual mean, averaged over 3 years
		primary and secondary	24 hours	35 µg/m <sup>3</sup>	98th percentile, averaged over 3 years
	PM <sub>10</sub>	primary and secondary	24 hours	150 µg/m <sup>3</sup>	Not to be exceeded more than once per year on average over 3 years
<a href="#">Sulfur Dioxide (SO<sub>2</sub>)</a>	primary	1 hour	75 ppb <sup>(4)</sup>	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year	

<sup>10</sup> Taken from <https://www.epa.gov/criteria-air-pollutants/naaqs-table> (last visited Mar. 22, 2021).

## I.A. State Law Incorporated into EPA Air Quality Program

In Colorado, authority under the CAA and Colorado's relevant SIP is delegated to the APCD of CDPHE.<sup>11</sup> As part of its SIP, Colorado's permitting program includes Colorado Air Quality Control Commission (AQCC) Regulation 3.<sup>12</sup> Part D of AQCC Regulation 3 addresses the requirements for Major Stationary Sources within the NSR/PSD permitting program, and Part B addresses the requirements for construction permits for all sources, major and minor, unless a specific reference is made to Part D for major sources.

**Regulation 3, Part B § III.B.5** states:

Except for applications for sources subject to the requirements of Section VI. of Part D of this regulation (Prevention of Significant Deterioration), the Division shall prepare its preliminary analysis within sixty calendar days after receipt of a complete permit application. The preliminary analysis allows the Division to determine whether the new source will, at date of commencement of operation, comply with: ... Any applicable ambient air quality standards and all applicable regulations. . . . The preliminary analysis shall indicate what impact, if any, the new source will have (as of the projected date of commencement of operation) on all areas (attainment, attainment/maintenance, nonattainment, unclassifiable), within the probable area of influence of the proposed source... When the preliminary analysis includes modeling, the model used shall be an appropriate one given the topography, meteorology and other characteristics of the region that the source will impact. Use of any non-guideline model requires U.S. EPA approval under Section VIII.A. of Part A of this regulation.

**Part B § III.D.1** states:

The Division shall grant the permit if it finds that: [ . . . ]

(c) The proposed source or activity will not cause an exceedance of any National Ambient Air Quality Standards;

(d) The source or activity will meet any applicable ambient air quality standards and all applicable regulations;

**Part B § III.F.1** states:

If the Division determines that a source cannot comply with the provisions of Part B, Section III.D., of this regulation, the Division shall issue its written denial of the permit application stating the reasons for such denial.

Finally, regarding modeling, **Part A § VIII.A.1** states:

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<sup>11</sup> See <https://www.epa.gov/caa-permitting/caa-permitting-colorado>.

<sup>12</sup> 5 CCR 1001-5 (containing the entire text of Regulation 3); *see also* 40 C.F.R. § 52.320-354 (discussing Colorado SIP).

All estimates of ambient concentrations required under this Regulation Number 3 shall be based on the applicable air quality models, databases, and other requirements generally approved by U.S. EPA and specifically approved by the Division.

In short, CDPHE is required to verify through air quality modeling that a new major or minor stationary source, or a modification to an existing source, will not cause or contribute to a NAAQS exceedance. Issuing an air permit for a minor source without verifying NAAQS compliance violates the requirements of the New Source Review permitting program outlined in the EPA-approved SIP: Colorado's AQCC Regulation 3.

## II. Violations of Law

### CDPHE'S PROPOSED POLICY

On March 15, 2021 CDPHE's Air Pollution Control Division (APCD) Director Garry Kaufman informed the air quality modeling unit that it was now the policy of the APCD that NAAQS compliance in air permit applications will no longer be verified for the 1-hr NO<sub>2</sub>, 1-hr SO<sub>2</sub>, 3-hr SO<sub>2</sub>, and 24-hr PM<sub>2.5</sub> NAAQS.

This policy was set during a meeting that day between Director Kaufman, APCD Chief Strategy Officer Robyn Wille, APCD Technical Services Program Manager Gordon Pierce, and APCD Modeling and Emissions Inventory Unit Manager Emmett Malone.<sup>13</sup>

Instructions were provided via email from Gordon Pierce to Emmett Malone.<sup>14</sup> These instructions were conveyed verbally by Emmett Malone to CDPHE's two active permit modelers, DeVondria Reynolds and Bradley Rink, on March 16, 2021.

The instructions relayed to Malone by Pierce state:

Per the meeting we had today 3/15/21 with Garry and Robyn, Garry specifically stated that, effective immediately, the short-term thresholds in the Modeling Guideline will not be used and that modeling only be performed using the following thresholds:

- 40 tpy for NO<sub>2</sub> and SO<sub>2</sub>
- 82 lbs/day for PM<sub>10</sub>
- 5 tpy for PM<sub>2.5</sub>
- 23 lbs/hr for CO
- 25 lbs/3-mo for Pb

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<sup>13</sup> Emmett Malone is the current supervisor of complainants DeVondria Reynolds and Bradley Rink and had been the supervisor of Rosendo Majano until his transfer to another unit in 2020.

<sup>14</sup> See App'x 1-4.

He will allow exceptions based on agreement between the modelers and permit engineers, and his specific approval.

Garry also requested that the Modeling Guideline also be removed from the website, pending further discussions and revisions. I will ask Ivan to pull it. Attached is a copy of the current version that is on the website.<sup>15</sup>

That day, the modeling guidance document on CDPHE's AIR QUALITY MODELING GUIDANCE FOR PERMITS website was removed, and a note was added next to the removed hyperlink stating "**UNDER REVISION.**"<sup>16</sup>

**Air Quality**  
Department of Public Health & Environment

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## Air Quality Modeling Guidance for Permits

[Colorado Modeling Guideline](#)  
[Supplemental Guidance, Forms, and Information](#)  
[Meteorological Data](#)  
[Maps, Figures, Tables](#)  
[Federal Modeling Support](#)  
[On-Line Training](#)

[Queried Sources of Air Pollution Map](#)

This webpage presents current air quality permit modeling guidance for estimating impacts from stationary sources of air pollution.

For general permitting questions, contact the Stationary Sources Program. Contact monitoring or [modeling staff](#) in the Technical Services Program for monitoring or modeling questions, respectively.

[Completeness Checklist for Modeling Submittals](#)

[FAQs on Air Quality Modeling Data and Techniques](#)

## Colorado Modeling Guideline for Air Quality Permits

- Colorado Modeling Guideline for Air Quality Permits **UNDER REVISION**
- Meteorological Determinations and Application of Dispersion Models

## Supplemental Modeling Guidance, Forms, and Information

A discrepancy between what was discussed verbally in the March 15 meeting and Pierce's email was noted by Malone, who requested clarification:

One question that came up and if you or Garry could respond I would appreciate it. What I took from the meeting was that we are not to address the short term standards. The way you worded your email is slightly different, are we to address the short term standards?<sup>17</sup>

<sup>15</sup> App'x 3-4.

<sup>16</sup> See <https://www.colorado.gov/airquality/permits.aspx> (last accessed Mar. 22, 2021). A version of the guidelines as they existed prior to March 15, 2021 is attached as Appendix B.

<sup>17</sup> App'x 3. The line "2 years, 7 months, and 15 days" in Malone's email is believed to refer to the length of time before he can retire.

Pierce responded unequivocally:

No, we are not to address the short-term standards... "the short-term thresholds in the Modeling Guideline will not be used."<sup>18</sup>

Reynolds and Rink forwarded these instructions via email to CDPHE's third permit modeler, Rosendo Majano, who four months earlier transferred to a different unit, but continues to provide training and guidance to the active permit modelers. The response by the modelers was unequivocal: this is a violation of the law.<sup>19</sup>

It is not a great leap to demonstrate that a state which purposefully disregards NAAQS standards is not complying with those NAAQS standards. This new policy violates Colorado AQCC Regulation 3, Part B §III.B.5<sup>20</sup> and §III.D.1,<sup>21</sup> and it would also violate Colorado's EPA-approved SIP and NSR Minor Source Permitting Program established per Title I, Part A, § 110 of the CAA<sup>22</sup> and 40 CFR § 51.160, as it exempts new stationary sources and modifications from demonstrating compliance with short term NAAQS by simply not considering them. This violation of the law is also contributing directly to chronic health problems, premature deaths, and severe injury to the environment by permitting ever more dangerous emissions.

Through this policy, CDPHE is attempting a reversal of federalism: voiding in Colorado the three most recent and most stringent ambient air standards promulgated by EPA, the 1-hr NO<sub>2</sub>,<sup>23</sup> 1-hr SO<sub>2</sub>,<sup>24</sup> and 24-hr PM<sub>2.5</sub> NAAQS;<sup>25</sup> all of which were put in place to protect human health and the environment after a thorough regulatory review and reaffirmed in 2018 and 2020.

In short, under this policy, permit applicants in Colorado no longer have to demonstrate that their proposed sources or modifications comply with these standards in order to get an air permit from CDPHE. In fact, numerous permits have already been issued over our objections that the new or modified sources did not comply with one or more NAAQS.<sup>26</sup>

It is also worth noting that NO<sub>2</sub> is one of the two main precursors of ozone, and that the Denver-North Front Range ozone nonattainment area has deteriorated from a designation of "Marginal" nonattainment in 2012 for the 2008 ozone NAAQS, to a designation of "Serious" nonattainment

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<sup>18</sup> Id. (emphasis and ellipses in original).

<sup>19</sup> Both Reynolds and Rink sent separate emails declaring their intent to blow the whistle about this new policy. App'x 24-28.

<sup>20</sup> Requiring that any preliminary analysis demonstrate that the proposed new source "will, at date of commencement of operation, comply with [ . . . a]ny applicable ambient air quality standards and all applicable regulations."

<sup>21</sup> requiring that permits be granted only upon a finding that the proposed new source would not cause exceedance of any NAAQS and would comply with applicable air quality standards.

<sup>22</sup> 42 U.S.C. § 7410.

<sup>23</sup> 75 Fed. Reg. 6,474 (Feb 9, 2010).

<sup>24</sup> 75 Fed. Reg. 35,520 (Jun 22, 2010).

<sup>25</sup> 78 Fed. Reg. 3,085 (Mar. 18, 2013).

<sup>26</sup> Described *infra*.

in 2020, and soon to deteriorate to a designation of “Severe.” This new policy will enable unfettered growth of NO<sub>2</sub> sources in the nonattainment area and elsewhere in the state at precisely the time when CDPHE should be making efforts to achieve exactly the opposite.

In addition to violating the aforementioned regulatory provisions, this policy is also being implemented essentially in secret. This policy was not brought to the Air Quality Control Commission, has not received public scrutiny, was implemented internally without notice, and as such violates Colorado’s Administrative Procedure Act.<sup>27</sup>

### Pattern of Unlawful Conduct

The March 15, 2021 policy reduces to writing a longstanding informal practice of the APCD of approving permits at all costs even where modeling has demonstrated NAAQS violations. Evidence demonstrating this history of unlawful conduct in implementing EPA programs under the CAA is too plentiful to reproduce in full here and can be provided upon request, but certain illustrative examples deserve note.

On September 20, 2010 CDPHE instituted a minimum threshold policy under PS Memo 10-01<sup>28</sup> in which all sources with NO<sub>2</sub> or SO<sub>2</sub> emissions of 40 tons per year or less are exempted from demonstrating compliance with the corresponding 1-hr National Ambient Air Quality Standards (NAAQS), even if they actually exceed that standard many times over. This exemption enabled unfettered growth of NO<sub>2</sub> emissions in the ozone nonattainment area from sources which have been able to obtain air pollution permits without any verification or modeling of their impacts on air quality or public health. The memo, despite being labelled as nonbinding guidance, was interpreted to “supersede statutory/regulatory requirements” of the CAA in April 2011 and has been applied as such ever since.<sup>29</sup>

In December 2011, Memo 10-01 was applied when the modeling unit informed the permitting unit that a facility that they were preparing to approve a permit for would emit more than ten times the hourly allowed rate of SO<sub>2</sub> emissions. The permitting unit told the modeler that they did not request SO<sub>2</sub> modeling because the facility would emit less than 40 tons per year of SO<sub>2</sub> so the hourly limits would not be considered per the memo. Ultimately management decided that despite being ten times over the hourly limit, a demonstration of modeling compliance would not be needed.<sup>30</sup>

In November 2012, a hard rock mine submitted an application in which it claimed to be exempt from demonstrating compliance with PM<sub>2.5</sub> emissions. The same application had been rejected in 2009 for failure to properly demonstrate modeled compliance with particulate matter emissions

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<sup>27</sup> C.R.S. § 24-4-106.

<sup>28</sup> App’x 5-6, also available at

<https://environmentalrecords.colorado.gov/HPRMWebDrawer/RecordView/901901>.

<sup>29</sup> App’x 50-52 (2011); 53-54 (2013)

<sup>30</sup> App’x 7-9.



limits, and this time was approved with no substantial changes based on a management decision that the facility should not have to demonstrate compliance.<sup>31</sup>

The next month, APCD Scientist and then-Modeling Unit Supervisor, Chuck Machovec documented a conversation with APCD Deputy Director Garry Kaufman, who later became Division Director, his current position. Machovec states that

[Kaufman] also mentioned that at some point he wants to have a meeting to reach an understanding on “policy” versus “technical” aspects of modeling. I told him that as long as their [sic] is unwritten policy whereby management asks staff verbally to not follow language in the rule, there will be issues. Any requests from management for staff to not follow the requirements of the rule should be in writing.<sup>32</sup>

In July 2015, CDPHE employee Doris Jung described the process which led to Memo 10-01’s formation and the motivation for CDPHE’s management to suppress inconvenient modeling reports. In short, the permitting unit did not believe that their applicants could demonstrate that they complied with the NAAQS but wanted to issue permits regardless:

In addition to discussing PM<sub>2.5</sub> in this meeting, we (modelers) were told to raise the modeling thresholds because compliance with NAAQS could not be demonstrated or they would just issue permits without considering NAAQS compliance.

We (modelers) argued that their approach would be inconsistent with regulatory requirements and raising thresholds when NAAQS are more stringent was not technically justified but ultimately we were ignored. Consequently, since the modelers wouldn't cooperate, permitting came out with the [sic] 40 tpy threshold for 1-hr NO<sub>2</sub> and SO<sub>2</sub> NAAQS on September 20, 2010.

The circumstances and the permitting personnel involved have not changed since the 2010 meeting/ decision. While I agree concerns for NAAQS attainment remain, there is nothing that indicates to me that permitting is willing to change their practice.<sup>33</sup>

This explanation was given in response to concerns raised by modeling staff that CDPHE was issuing permits to facilities that had small annual emissions rates but still caused a disproportionately severe impacts on local air quality, particularly regarding the hourly NAAQS.<sup>34</sup>

Multiple times over the years CDPHE made it clear to the modeling unit that Memo 10-01, despite being issued informally as “guidance,” was controlling and, at least for CDPHE, even overrode

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<sup>31</sup> App’x 10-11; 12-14.

<sup>32</sup> App’x 15.

<sup>33</sup> App’x 16-20.

<sup>34</sup> App’x 16.

state and federal law regarding NAAQS compliance.<sup>35</sup> An incomplete list of permits issued despite modeled violations of one or more NAAQS is included at the end of this section.

This policy has had dangerous consequences for the culture of compliance among industry in Colorado. In a March 2020 email exchange between a CDPHE permit engineer and an industry consultant, the consultant explains their reasons for not submitting a NAAQS compliance demonstration for the 24-hr PM<sub>2.5</sub> standard, stating:

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 PM<sub>2.5</sub>, unless there are special circumstances (e.g., high expectation of comments from nearby residents).<sup>36</sup>

The response from CDPHE's permit engineer confirms this understanding and paints a chilling portrait of official complicity with this unlawful conduct:

After consulting with some higher-ups, I agree that modeling for the 24-hour PM<sub>2.5</sub> 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 PM<sub>2.5</sub> modeling threshold," but we do it on more of a case-by-case basis.<sup>37</sup>

CDPHE is enforcing compliance with the 24-hr PM<sub>2.5</sub> NAAQS only when there is a possibility that the permit will be subject to public scrutiny, and finds it "unfortunate" that the legal threshold exists at all. Public scrutiny is the only criteria that CDPHE is concerned about when enforcing, or abstaining from, the NAAQS, not legal obligations or concern for public health and the environment.

Despite attempts by environmental and conservation groups in Colorado to alert CDPHE leadership and management of the gravity of the situation, the agency has only buried its head deeper in the sand to avoid evidence that they are issuing unlawful permits.

A close review of permit applications approved by CDPHE would demonstrate that a very large number of those permits were issued without any attempt to determine whether a proposed new facility or modification would interfere with the attainment or maintenance of hourly and daily NAAQS. In many cases, permits were issued with actual knowledge that the proposed facilities may have modeled NAAQS violations, or even with knowledge of clear and conclusive evidence of such violations.

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<sup>35</sup> App'x 21 ("PS memo 10-01 makes it very clear that we cannot require [an applicant] to do modeling to the 1 hour NO<sub>x</sub> standard since emissions of NO<sub>x</sub> will be less than 40 tons per year.").

<sup>36</sup> App'x 22.

<sup>37</sup> Id.

## Visual Example of the Cumulative Impacts of Exempting “Minor” Facilities from Regulation

The consequences of PS Memo 10-01 and the culture of permitting at all costs at the CDPHE APCD are best illustrated by example. The Martin Marietta Highway 34 Facility (the “Highway 34 Facility”), an asphalt and concrete plant, was permitted by the Air Pollution Control Division (APCD) inside the ozone non-attainment area despite exhibiting modeled violations of the 1-hr NO<sub>2</sub> NAAQS.<sup>38</sup> It was exempted from demonstrating compliance with this standard based on the PS Memo 10-01.

About three miles from the Highway 34 Facility, the Extraction Oil & Gas Johnson’s Corner Production Facility (the “Johnson’s Corner Facility”) started operation in March of 2018 and applied for a permit based on Colorado Reg. 3 § II.D.1.iii. This facility operated without a permit for a long time and, like the Highway 34 Facility, has been exempted from demonstrating compliance with the NAAQS based on the PS Memo 10-01.<sup>39</sup> In addition to the violations of the 1-hr NO<sub>2</sub> standard already caused by the nearby Highway 34 Facility, it is likely that the Johnson’s Corner facility is amplifying and making worse an already existing violation with negative implications for air quality and public health.

These are only two small facilities located in an area saturated with hundreds of other facilities, all inside the ozone non-attainment area, and jointly emitting thousands of tons per year of one of the main ozone precursors, NO<sub>2</sub>. Using the CDPHE mapping site we can see the huge number of facilities operating.<sup>40</sup>

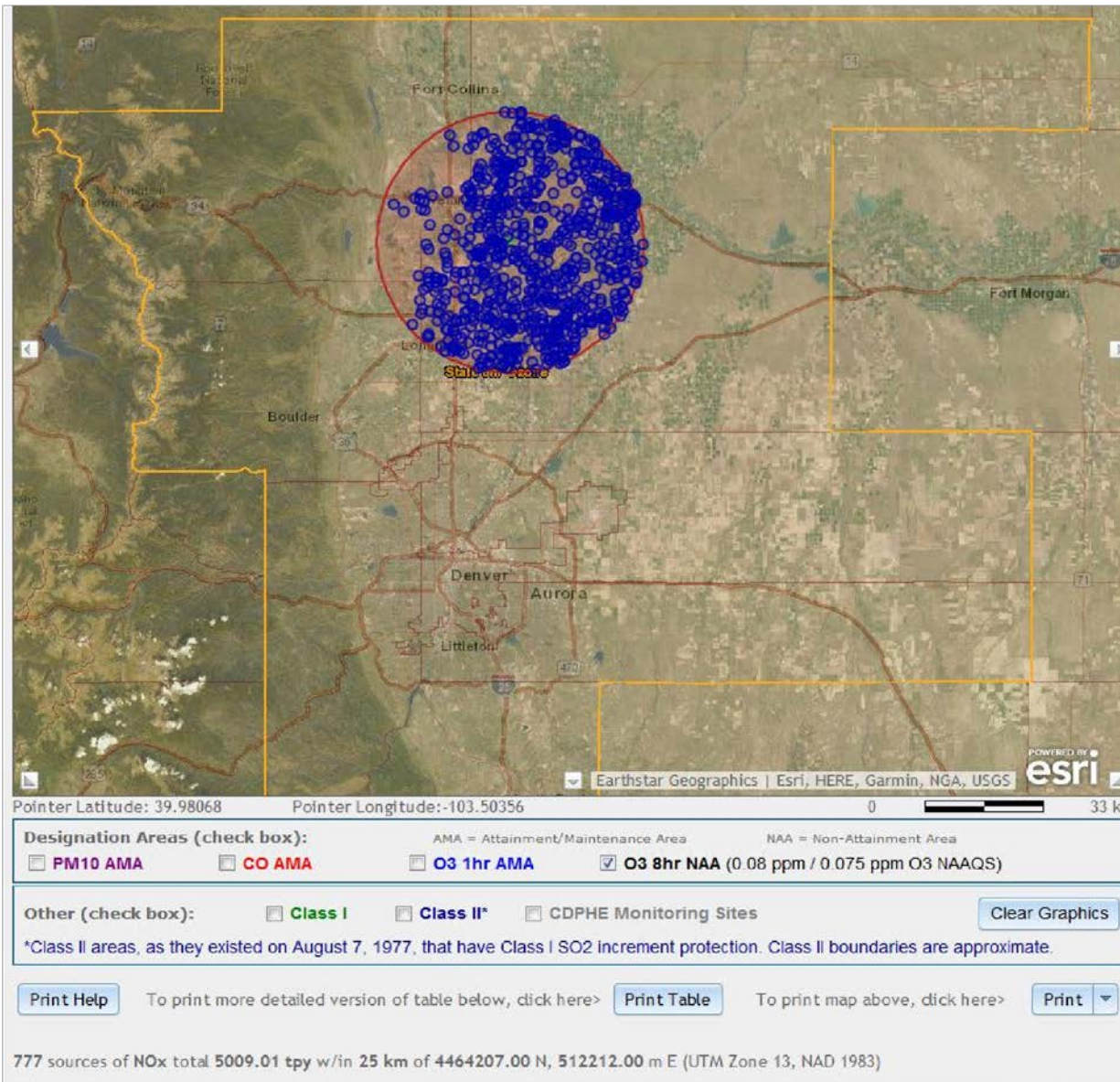
The graphic below shows that in a radius of 25 kilometers around the Johnson’s Corner Facility and Highway 34 Facility, there are 777 sources emitting a total of 5009.01 tons per year of NO<sub>2</sub>. Almost half of that total --48%--comes from facilities with individual emissions below the level set in PS Memo 10-01 and the general permit’s threshold of 40 tons per year. This means that these facilities have likely been permitted without any assessment of the cumulative impact of their NO<sub>2</sub> emissions.

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<sup>38</sup> Permit Numbers 16WE0688, 16WE0689. AIRS ID 123-9E8B. NKA Rock & Rail Highway 34 Facility.

<sup>39</sup> CDPHE email response of 10/16/19 to PEER public record request. Interoffice email states that there is no CDPHE air permit modeling report for Johnson’s Corner. AIRS ID 123-9FCC.

<sup>40</sup> [https://www.colorado.gov/airquality/ss\\_map\\_wm.aspx](https://www.colorado.gov/airquality/ss_map_wm.aspx)



Had these sources been permitted in compliance with regulatory requirements, the corresponding facilities would have been required to implement control measures, use better technology, or downsize their projects. This in turn would have the final effect of reducing the NO<sub>2</sub> emissions to comply with the 1-hr NO<sub>2</sub> NAAQS and in turn reducing the formation of ozone.

It is also possible that the area is so saturated that no more NO<sub>2</sub> sources would have been permitted at all, which would have at least slowed down the continuing deterioration of the ozone problem. Determining the actual status of the air quality in that area is part of CDPHE's job, but that duty has been neglected for years, leading to the current crisis and the downgrading of Colorado's NAAQS non-attainment status to "serious" from "moderate."

## Unlawfully Issued Permits

An incomplete list of permits issued with potential or actual modeled NAAQS violations includes:

- Williams Willow Creek Gas Plant, in Rio Blanco County, CO. AIRS ID 103-0360. Issued with modeled violations of the 1-hr SO<sub>2</sub> NAAQS.<sup>41</sup>
- ColoWyo Coal Mine, in Moffat and Rio Blanco Counties, CO. AIRS ID 103-0327. Issued with 1-hr NO<sub>2</sub> NAAQS modeled violations.<sup>42</sup>
- Asphalt Specialties Central Plant in Weld County, CO. AIRS ID 123-A023. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS and with suspected violations of the PM<sub>10</sub>, and both PM<sub>2.5</sub> NAAQS.<sup>43</sup>
- Martin Marietta Monaghan Facility in Adams County, CO. AIRS 001-2193. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS.<sup>44</sup>
- Aggregate Industries Oxford Asphalt Plant in Arapahoe County, CO. AIRS ID 005-0116. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS.<sup>45</sup>
- Cripple Creek & Victor Gold Mine in Teller County, CO. AIRS ID 119-001. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS and with suspected violations of the PM<sub>10</sub>, and both PM<sub>2.5</sub> NAAQS. **A CDPHE modeler was ordered to falsify data in a modeling report regarding this facility to ensure that no modeled violation would be reported.**<sup>46</sup>

The modeler explained as much in writing to his supervisor, Emmett Malone:

“As you know, officially there aren't any modeled violations at the CC&V Mine. That's because of the 01/14/19<sup>47</sup> and 01/28/19<sup>48</sup> 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/m<sup>3</sup> (99.77 ppb). The NAAQS is of 100 ppb. Reality however, is very different.

[. . .]

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<sup>41</sup> See also App'x 16-17 (discussing how Williams Willow Creek Plant was approved despite “clear potential” to violate the 1-hr SO<sub>2</sub> and NO<sub>2</sub> NAAQS).

<sup>42</sup> App'x 55-57.

<sup>43</sup> App'x 29 (“the facility submitted a NAAQS compliance demonstration only for carbon monoxide despite having emissions rates of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub>, that exceed the corresponding short-term modeling thresholds”).

<sup>44</sup> App'x 30-33 (correspondence between modeling and permitting units regarding this facility).

<sup>45</sup> App'x 34-35 (correspondence indicating violations of NAAQS and use of outdated software by applicant to demonstrate modeling compliance).

<sup>46</sup> App'x 36.

<sup>47</sup> App'x 40-46

<sup>48</sup> App'x 47-49

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?

- Bighorn Pad in Jackson County, CO. AIRS ID 057-0051. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS.
- Martin Marietta Materials Highway 34 Facility in Weld County, CO. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS.
- JBS Swift Beef Company in Weld County, CO. AIRS ID 123-0018. Issued with modeled violations of the 1-hr NO<sub>2</sub> NAAQS.
- McCormick Asphalt Plant in Yuma County, CO. Issued with modeled violation of the 1-hr NO<sub>2</sub> and 1-hr SO<sub>2</sub> NAAQS.<sup>49</sup>
- Asphalt Specialties Co., Inc. / 62nd Ave. Asphalt Plant in Adams County, CO. Issued with modeled violation s of the 1-hr NO<sub>2</sub> NAAQS and high potential for violation of PM<sub>10</sub> and PM<sub>2.5</sub> NAAQS.<sup>50</sup>

These cases are a small sample demonstrating CDPHE's ongoing failure to enforce its SIP and its minor source permitting program. The March 15, 2021 policy prohibiting modeling of these NAAQS is the latest and most concrete instance of a pattern of unlawful conduct which is directly responsible for Colorado's precipitous decline in air quality in the last decade. Consequently, we request that EPAOIG take immediate action to investigate the CDPHE NAAQS program and permits issued under it.

Sincerely,

Rosendo Majano

DeVondria Reynolds

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March 30, 2021

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<sup>49</sup> App'x 37-39 (correspondence).

<sup>50</sup> App'x 37-39 (correspondence).

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