

Commonwealth of Kentucky Office of the Attorney General

Daniel Cameron Attorney General Capitol Building Frankfort, Kentucky

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Via Federal eRulemaking Portal

U.S. Environmental Protection Agency EPA Docket Center Air and Radiation Docket Mail Code 28221T 1200 Pennsylvania Avenue NW Washington, DC 20460.

Re: Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (Docket ID No. EPA–HQ–OAR–2015–0072; FRL–8635–01–OAR)

The Attorneys General of Kentucky and the eighteen undersigned States respectfully submit the following comments in response to the Environmental Protection Agency's (EPA) Reconsideration of the National Ambient Air Quality Standards for Particulate Matter (Proposed Rule).<sup>1</sup> Following a careful review spanning six years and culminating in a well-reasoned decision in 2020, the EPA found the national ambient air quality standards for particulate matter (NAAQS) were at the level requisite to protect public health.<sup>2</sup> The EPA therefore concluded that the NAAQS required no adjustment. Only after a change in administration and the issuance of President Biden's Executive Order on "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis,"<sup>3</sup> did the EPA decide to reconsider its 2020 Action.<sup>4</sup> As a result of such reconsideration, the EPA

<sup>&</sup>lt;sup>1</sup> 88 Fed. Reg. 18 (Jan. 27, 2023), *available at* https://www.govinfo.gov/content/pkg/FR-2023-01-27/pdf/2023-00269.pdf [hereinafter Proposed Rule].

<sup>&</sup>lt;sup>2</sup> Review of the National Ambient Air Quality Standards for Particulate Matter, 85 Fed. Reg. 244 (Dec. 18, 2020), *available at* https://www.govinfo.gov/content/pkg/FR-2020-12-18/pdf/2020-27125.pdf [hereinafter 2020 Action].

<sup>&</sup>lt;sup>3</sup> Exec. Order No. 13990, 86 Fed. Reg. 14 (Jan. 25, 2021), *available at* https://www.govinfo.gov/content/pkg/FR-2021-01-25/pdf/2021-01765.pdf.

<sup>&</sup>lt;sup>4</sup> Proposed Rule, *supra* note 1 at 5567 (beginning the section titled "Reconsideration of the 2020 PM NAAAQS Final Action" with a discussion of Executive Order 13990).

now proposes lowering the annual  $PM_{2.5}$  standard from 12  $\mu\text{g/m3}$  to a range of 9.0–10.0  $\mu\text{g/m3.}^5$ 

The EPA should withdraw the proposed change. The Proposed Rule exceeds the EPA's statutory authority under the Clean Air Act, fails to offer sufficient scientific evidence demonstrating a need to revise the NAAQS, and imposes real harm. We, therefore, urge the EPA to withdraw the Proposed Rule and maintain the current NAAQS.

# I. Background

The Clean Air Act (or, the Act) directs the EPA to propose and promulgate "primary" and "secondary" NAAQS for certain pollutants.<sup>6</sup> As part of this process, the EPA has set primary and secondary standards for two kinds of particulate matter: PM<sub>10</sub> (air pollution particles with a diameter less than 10 microns) and PM<sub>2.5</sub> (air pollution particles with a diameter less than 2.5 microns). The EPA's primary standards for PM<sub>10</sub> and PM<sub>2.5</sub> must be national air quality levels "requisite to protect the public health."<sup>7</sup> Secondary standards are those "requisite to protect the public welfare from any known or anticipated adverse effects" from pollutants.<sup>8</sup> The Clean Air Act envisions the EPA adjusting its prior determinations as the scientific evidence evolves. The Act thus requires the EPA to conduct a new review no more than five years after its previous review.<sup>9</sup> Although the five-year review period is a ceiling and not a floor, the review period nevertheless establishes a reliable timeline for anticipated EPA action. Affected entities make costly investments based on a reliance that the EPA will not arbitrarily shift its determination like the winds it studies.

To prevent such arbitrary action, the Clean Air Act requires the EPA to establish primary and secondary standards that are no more or less stringent than necessary. Importantly, the Clean Air Act does not require the EPA to establish primary standards that remove *all* pollutants from the air.<sup>10</sup> Instead, the EPA's standards must provide only "an adequate margin of safety."<sup>11</sup>

The requirement that primary standards establish an adequate margin of safety, instead of absolute safety, was intentional. There is no process for removing all pollutants from the air, and there is no method for determining conclusively the

 $<sup>^{5}</sup>$  Id. at 5560.

<sup>&</sup>lt;sup>6</sup> 42 U.S.C. § 7409(a).

<sup>&</sup>lt;sup>7</sup> Id. at § 7409(b)(1).

<sup>&</sup>lt;sup>8</sup> Id. at § 7409(b)(2).

<sup>&</sup>lt;sup>9</sup> Id. at § 7409(d)(1).

<sup>&</sup>lt;sup>10</sup> See Lead Indus. Ass'n. v. EPA, 647 F.2d 1130, 1155 n.51 (D.C. Cir. 1980), cert. denied, 449 U.S. 1042 (1980); Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 494–95 (2001) (Breyer, J., concurring in part and in the judgment) (explaining that the language "requisite to protect the public health" does not require standards that enable "a world that is free from all risk").

<sup>&</sup>lt;sup>11</sup> 42 U.S.C. § 7409(b)(1).

exact impact of air quality on public health.<sup>12</sup> Consequently, as the EPA noted in 2020, the Clean Air Act intended the NAAQS to reflect merely the "best, current scientific information."<sup>13</sup>

Since the 1980s, the EPA has collected and reviewed the science and determined whether current standards are sufficient to protect public health, with an "adequate margin of safety." In 2020, that is exactly what the EPA did when it agreed to continue the standards set by the Obama Administration.<sup>14</sup> Yet, on January 27, 2023, the EPA published the Proposed Rule and announced its plan to lower the primary annual standard for PM<sub>2.5</sub> to a range of 9.0–10.0  $\mu$ g/m3 from the current standard of 12  $\mu$ g/m3, as well as accept comments regarding whether the standard should be decreased further to as low as 8.0  $\mu$ g/m3.<sup>15</sup>

As grounds for this change, the EPA offers nothing more than questionable studies about COVID-19 and certain groups' increased "exposure" to  $PM_{2.5}$ , and additional studies confirming a causal link between  $PM_{2.5}$  exposure and adverse health effects that had already been determined to exist in 2020.<sup>16</sup> This "new science" is simply a pretext for the EPA to establish the NAAQS at a level commensurate with President Biden's policy preferences.<sup>17</sup>

## II. Analysis

While the EPA can revisit and revise its standards, it can only do so in a manner that is consistent with its authority under the Clean Air Act and if supported by science showing the revision is "requisite for the public health."<sup>18</sup> The Proposed Rule fails on both accounts. Therefore, the undersigned Attorneys General urge the EPA to maintain the current NAAQS and withdraw the Proposed Rule.

 $^{16}$  See *id.* at 5580.

<sup>&</sup>lt;sup>12</sup> See 2020 Action, *supra* note 2 at 82710 (noting conflicting reports on the exact impact of air quality on public health, especially the difficulty in separating air quality's impact from the impact of other factors and in determining the impact of more stringent standards).

<sup>&</sup>lt;sup>13</sup> Back-to-Basics Process for Reviewing National Ambient Air Quality Standards at 1, EPA (May 9, 2018), https://perma.cc/6FFZ-RP8M.

 $<sup>^{14}</sup>$   $\,$  2020 Action, supra note 2.

<sup>&</sup>lt;sup>15</sup> Proposed Rule, *supra* note 1 at 5560.

<sup>&</sup>lt;sup>17</sup> On his first day in office, President Biden signed a letter to have the United States rejoin the Paris Climate Agreement. *Press Statement of Secretary of State Anthony Blinken* (Feb. 19, 2021), *available at* https://www.state.gov/the-united-states-officially-rejoins-the-paris-agreement/; see Matt McGrath, *US rejoins Paris accord: Biden's first act sets tone for ambitious approach*, BBC (Feb. 19, 2021), https://www.bbc.com/news/science-environment-55732386. He has also issued a number of executive orders directing the federal government to address "the climate crisis." *See, e.g., Tackling the Climate Crisis at Home and Abroad*, Exec. Order No. 14008, 86 Fed. Reg. 19 at 7622 (Jan. 27, 2021), *available at* https://www.govinfo.gov/content/pkg/FR-2021-02-01/pdf/2021-02177.pdf ("Together, we must combat the climate crisis with bold, progressive action that combines the full capacity of the Federal Government with efforts from every corner of our Nation, every level of government, and every sector of our economy.").

<sup>&</sup>lt;sup>18</sup> See 42 U.S.C. § 7409.

# A. The Proposed Rule exceeds the EPA's statutory authority.

The Clean Air Act seeks to safeguard human health and the environment from air pollution, and it gives the EPA authority to take delineated actions to further that goal. But the Act does not give the EPA unlimited authority to address all environmental issues generally. "Agencies have only those powers given to them by Congress, and enabling legislation is generally not an open book to which the agency may add pages and change the plot line."<sup>19</sup> Put another way, the people's representatives in Congress, not unelected bureaucrats at the EPA, determine the extent of agency authority. Yet, rewriting the authority that Congress has given the EPA is exactly what this Proposed Rule attempts to do.

Under the Clean Air Act, the EPA must prescribe national ambient air quality standards that "are requisite to protect the public health" with "an adequate margin of safety."<sup>20</sup> This means the EPA "is to identify the maximum airborne concentration of a pollutant that the public health can tolerate, decrease the concentration to provide an 'adequate' margin of safety, and set the standard at that level."<sup>21</sup> But the EPA reads the Act to allow the agency "not only to prevent pollution levels that have been demonstrated to be harmful but also to prevent lower pollutant levels that may pose an unacceptable risk of harm, even if the risk is not precisely identified as to nature or degree."<sup>22</sup> This is contrary to the Act's language which directs the agency to establish standards that are "requisite to protect the public health,"<sup>23</sup> that is, standards that are "necessary."<sup>24</sup> Pollutant levels that *may* pose an unacceptable risk of harm are too speculative to demonstrate that a lower level is "requisite to protect the public health."

In setting the NAAQS, the EPA must rely on "the information about health effects contained in the technical 'criteria' documents compiled under § 108(a)(2), 42 U.S.C. § 7408(a)(2)."<sup>25</sup> Therefore, for the NAAQS to be requisite to protect the public health, they must be based on the criteria in §  $7408.^{26}$  That section says the criteria "shall accurately reflect the latest scientific knowledge" and should include information on:

<sup>&</sup>lt;sup>19</sup> West Virginia v. EPA, 142 S. Ct. 2587, 2609 (2022) (cleaned up).

<sup>&</sup>lt;sup>20</sup> 42 U.S.C. § 7409(b)(1).

<sup>&</sup>lt;sup>21</sup> Whitman, 531 U.S. at 465.

<sup>&</sup>lt;sup>22</sup> Proposed Rule, *supra* note 1 at 5564.

<sup>&</sup>lt;sup>23</sup> 42 U.S.C. § 7409(b)(1).

<sup>&</sup>lt;sup>24</sup> Merriam Webster, https://www.merriam-webster.com/dictionary/requisite (defining requisite as "needed for a particular purpose: essential, necessary").

<sup>&</sup>lt;sup>25</sup> Whitman, 531 U.S. at 465.

 $<sup>^{26}</sup>$  Id. at 469 (finding defective the argument that the EPA can consider factors other than those set forth in § 7408 when establishing the standard "requisite to protect public health").

(A) those variable factors (including atmospheric conditions) which of themselves or in combination with other factors may alter the effects on public health or welfare of such air pollutant;

(B) the types of air pollutants which, when present in the atmosphere, may interact with such pollutant to produce an adverse effect on public health or welfare; and

(C) any known or anticipated adverse effects on welfare.<sup>27</sup>

These criteria are science-based, not policy-based. Thus, policy initiatives even ones the EPA considers important<sup>28</sup>—should not be included because the EPA has no authority to include them.<sup>29</sup> Indeed, the EPA's "mission is not a roving commission to achieve pure air or any other laudable goal."<sup>30</sup> This means the EPA simply cannot use the NAAQS "to confront the climate crisis" generally, as the President demands.<sup>31</sup> The authority to set and revise the NAAQS is much more limited.

Notably, instead of citing to §§ 7408 and 7409 of title 42 as its authority for lowering the NAAQS, the EPA cites "42 U.S.C. 7401, et. seq."<sup>32</sup> But the EPA cannot rely on the purpose statement or any other provision to expand on or supersede the provisions specific to setting the NAAQS.<sup>33</sup> Rather, the EPA's "power to act and *how* [it is] to act is authoritatively prescribed by Congress."<sup>34</sup> That means the EPA must ground its authority for changing the NAAQS in the provisions specific to the NAAQS.

With this Proposed Rule, the EPA is attempting to rewrite its authority under the Clean Air Act so it can respond to President Biden's environmental goals. But

<sup>&</sup>lt;sup>27</sup> 42 U.S.C. § 7408(2).

<sup>&</sup>lt;sup>28</sup> This includes "environmental justice." The EPA notes specifically that the new science on which it relies for amending the rule includes studies that examine disparities by race/ethnicity or socioeconomic status "in accordance with recent EPA goals on addressing environmental justice." Proposed Rule, *supra* note 1 at 5568. In particular, the EPA claims racial minorities may be disproportionally exposed to PM<sub>2.5</sub>, and therefore, a more stringent NAAQS is necessary. *See id.* at 5607. There may indeed be groups that are more impacted than others by air pollution, but nothing in the Clean Air Act indicates Congress meant for the EPA to address alleged societal discrimination. *See infra* note 47.

<sup>&</sup>lt;sup>29</sup> See 42 U.S.C. § 7408 ("Air quality criteria for an air pollutant shall accurately reflect the latest scientific knowledge[.]"); see also Am. Petroleum Inst. v. EPA, 52 F.3d 1113, 1120 (D.C. Cir. 1995) ("[W]e will not presume a delegation of power based solely on the fact that there is not an express withholding of such power." (internal citation omitted)).

<sup>&</sup>lt;sup>30</sup> Michigan v. EPA, 268 F.3d 1075, 1084 (D.C. Cir. 2001)

<sup>&</sup>lt;sup>31</sup> Exec. Order No. 13990, *supra* note 3.

<sup>&</sup>lt;sup>32</sup> Proposed Rule, *supra* note 1 at 5694. Section 7401 is the purpose statement of the Clean Air Act.

<sup>&</sup>lt;sup>33</sup> See Am. Petroleum Inst., 52 F.3d at 1119–20 ("EPA cannot rely on its general authority to make rules necessary to carry out its functions when a specific statutory directive defines the relevant functions of EPA in a particular area."); Commonwealth v. Biden, 57 F.4th 545, 552 (6th Cir. 2023) ("[A] purpose statement 'cannot override a statute's operative language."" (internal citation omitted)).

<sup>&</sup>lt;sup>34</sup> City of Arlington v. FCC, 569 U.S. 290, 297 (2013) (emphasis added).

Congress has given it no such authority. Far from being based on the latest Administration's policies, the Act requires the EPA to set the NAAQS at the level "requisite to the public health" based on the "latest scientific knowledge."<sup>35</sup>

# B. The EPA fails to offer sufficient scientific evidence demonstrating a need to revise the NAAQS.

Although the EPA has authority to reconsider its prior NAAQS determinations, the decision to do so cannot be arbitrary and capricious.<sup>36</sup> Because the EPA has reversed its "former views as to the proper course," it must "supply a reasoned analysis for the change beyond that which may be required when an agency does not act in the first instance."<sup>37</sup> The EPA retained the NAAQS in December 2020 because no new science demonstrated that public health required otherwise.<sup>38</sup> The same is true now. The science has not changed since the current standards were established. Indeed, in the Proposed Rule, the EPA offers only studies of dubious merit, or studies confirming what was already known at the time of the 2020 Action.

First, the EPA relies on studies that purport to examine the relationship between PM<sub>2.5</sub> exposure and COVID-19 health outcomes.<sup>39</sup> While it is certainly true the COVID-19 studies are "new" (the literature cutoff date for the 2020 Action predated COVID-19's arrival in the United States), the EPA fails to show the studies can be reasonably relied upon to change the NAAQS. After all, the EPA acknowledges that "uncertainties remain due to methodological issues that may influence the results."<sup>40</sup> For example, the studies examining short-term exposure to PM<sub>2.5</sub> examined deaths attributed to COVID-19 between March 1 and April 20, 2020,<sup>41</sup> and the studies examining long-term exposure to PM<sub>2.5</sub> examined COVID-19 deaths between January and July of 2020.<sup>42</sup> This means these studies were conducted at a time when very little was understood about the virus and mortality data was unreliable.<sup>43</sup> Moreover, the EPA acknowledges that the studies did not control for important factors such as "stay-at-home" orders.<sup>44</sup> As a result, any reliance on such

<sup>&</sup>lt;sup>35</sup> 42 U.S.C. § 7408(2).

<sup>&</sup>lt;sup>36</sup> See Motor Vehicle Mfrs. Ass'n of United States, Inc. v. State Farm. Mut. Auto. Ins. Co., 463 U.S. 29, 42–43 (1983).

<sup>&</sup>lt;sup>37</sup> Id. at 41–42.

<sup>&</sup>lt;sup>38</sup> See 2020 Action, supra note 2 at 82685.

<sup>&</sup>lt;sup>39</sup> Proposed Rule, *supra* note 1 at 5590.

<sup>&</sup>lt;sup>40</sup> *Id.* at 5591.

<sup>&</sup>lt;sup>41</sup> See Supplement to the 2019 Integrated Science Assessment for Particulate Matter, EPA (Apr. 14, 2022) at 3.3.2.1, *available at* https://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=354490 [hereinafter ISA Supplement].

 $<sup>^{42}</sup>$  Id. at 3.3.2.2.

<sup>&</sup>lt;sup>43</sup> See S.E. Galaitsi, et al., The challenges of data usage for the United States' COVID-19 response, INT'L J. OF INFO. MGMT (Aug. 2021), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8017563/.

<sup>&</sup>lt;sup>44</sup> Proposed Rule, *supra* note 1 at 5591 ("[S]tudies did not account for crucial factors that could influence results (e.g., stay-at-home orders, social distancing, use of masks, and testing capacity).").

studies should be minimal. Yet, the EPA treats these admittedly uncertain studies as "evidence that addresses key scientific topics where the literature has evolved."<sup>45</sup> These studies simply are not sufficient to meet the agency's burden to show that evolving science demonstrates a lower standard is requisite for public health.

Second, the EPA relies on studies purporting to demonstrate that negative health impacts from particulate matter disproportionately affect racial minorities.<sup>46</sup> When non-race-based categories such as age, economic status, or diagnosed health conditions are available, it is questionable whether the EPA can consider race or ethnicity in determining the public health effects of particulate matter.<sup>47</sup> Furthermore, the EPA's race-based studies are rooted in "air quality scenarios defined by the . . . location with the highest 3-year average" particulate matter concentrations,<sup>48</sup> which tend to be in areas with large minority populations<sup>49</sup> and more sources of particulate matter.<sup>50</sup>

Regardless, the studies' conclusions do not clearly indicate that the EPA needs to change the NAAQS. The studies conclude racial minorities experience more adverse effects than others *living in the same area*.<sup>51</sup> In other words, something other than the level of particulate matter in the air is causing the disproportionate impact on minorities. For instance, *localized* air quality problems within the studied area may result in higher exposure of particulate matter for those living in the neighborhoods affected by the localized issues (such as proximity to a PM source).<sup>52</sup> It is not clear how a more stringent *national* standard will reduce the exposure disparity among groups living *within the same area*. Regardless, the EPA has already

 $<sup>^{45}</sup>$  Id. at 5568.

 $<sup>^{46}</sup>$  Id. at 5561.

<sup>&</sup>lt;sup>47</sup> Courts have said that race-based actions cannot be used to rectify general discrimination that is not tied to specific government action. *See Parents Involved in Cmty. Sch. v. Seattle Sch. Dist. No. 1*, 551 U.S. 701, 731 (2007) ("[R]emedying past societal discrimination does not justify race-conscious government action."); *see also Vitolo v. Guzman*, 999 F.3d 353, 361 (6th Cir. 2021) (explaining there must be a "specific episode of past discrimination" by the governmental unit involved (citation omitted)); *Faust v. Vilsack*, 519 F. Supp.3d 470, 476 (E.D. Wis. 2021) (finding the USDA lacked a compelling interest for racial classifications in aid to farmers by noting that observations that "prior, race-neutral" action has resulted in inequality are insufficient to establish a compelling interest).

<sup>&</sup>lt;sup>48</sup> Proposed Rule, *supra* note 1 at 5615.

<sup>&</sup>lt;sup>49</sup> See, e.g., Racial and ethnic minorities made up about 22 percent of the rural population in 2018, compared to 43 percent in urban areas, U.S. DEPT. OF AGR., https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=99538 (last updated Oct. 13, 2020).

<sup>&</sup>lt;sup>50</sup> Proposed Rule, *supra* note 1 at 5571 (noting that while ambient  $PM_{2.5}$  concentrations have decreased across much of the United States, "urban  $PM_{2.5}$  concentrations remain consistently higher than those in rural areas . . . due to the impact of local sources in urban areas").

<sup>&</sup>lt;sup>51</sup> *Id.* at 5615.

<sup>&</sup>lt;sup>52</sup> See ISA Supplement, supra note 41 at 3.3.3.3 ("Those of Black race, or who live in predominantly Black neighborhoods, are consistently subjected to the higher  $PM_{2.5}$  exposures, especially when compared with non-Hispanic White groups" (emphasis added)).

considered studies on the exposure disparity among racial minorities and determined that changing the NAAQS was not necessary to protect public health. $^{53}$ 

Similarly, the ISA Supplement references additional studies providing support for the EPA's previous conclusions that there is a causal link between  $PM_{2.5}$  exposure and negative cardiovascular effects, as well as overall morbidity.<sup>54</sup> The ISA Supplement also reaffirmed the EPA's prior findings that  $PM_{2.5}$  exposure is "likely to be causal" of negative respiratory effects.<sup>55</sup> Although this evidence supports prior findings of likely causality, it does not change the causality conclusions made by the EPA in its 2020 decision to leave the NAAQS unchanged. To demonstrate that it is now necessary to lower the NAAQS, the EPA cannot just provide additional studies proving causality. Rather, it must provide studies showing that particulate matter exposure at levels *lower* than the current standards also show a causal effect, thereby necessitating a lower NAAQS in order to be "requisite to protect the public health." The EPA fails to make such a showing.

Finally, the EPA also relies on studies with limited real-world data. The agency acknowledges that calculation of the mean concentration rates of exposure is important.<sup>56</sup> The EPA describes two study methods for calculating mean exposures: studies using monitor-based measurements and "hybrid" studies that use *modeling* (*i.e.*, not real-world measurements) to calculate the purported mean exposure. The Proposed Rule separates the studies using real-world data drawn from monitoring sites from the abstract modeling or "hybrid" studies.<sup>57</sup> Of those studies using real-world data based on EPA monitors, the only "new study" examining exposure at mean concentrations less than the current standard of 12  $\mu$ g/m3 was a 2018 study by Eum, *et al.*,<sup>58</sup> which was clearly available before the 2019 literature cutoff date. Moreover, the study found a statistically significant increased risk of morbidity per each increase of 10  $\mu$ g/m3 of PM<sub>2.5</sub>, not that associations of increased morbidity exist *at* 10  $\mu$ g/m3.<sup>59</sup>

All of the other studies on which the EPA relies are "hybrid" studies, which are models that require inputs based on human assumptions in addition to real-world data derived from other sources, such as satellites.<sup>60</sup> Given the variance that can

<sup>&</sup>lt;sup>53</sup> 2020 Action, *supra* note 2 at 82703 ("[T]he ISA concludes that '[t]here is strong evidence demonstrating that black and Hispanic populations, in particular, have higher  $PM_{2.5}$  exposures than non-Hispanic white populations' and that 'there is consistent evidence across multiple studies demonstrating an increase in risk for nonwhite populations' (U.S. EPA, 2019, p. 12– 38)").

<sup>&</sup>lt;sup>54</sup> See ISA Supplement, supra note 41, Table 2-2.

<sup>&</sup>lt;sup>55</sup> *Id.* at 2.1.1.1.

<sup>&</sup>lt;sup>56</sup> Proposed Rule, *supra* note 1 at 5596.

<sup>&</sup>lt;sup>57</sup> *Id.* at 5600–01, Figures 1 and 2.

<sup>&</sup>lt;sup>58</sup> *Id.* at Figure 1.

<sup>&</sup>lt;sup>59</sup> Ki-Do Eum, et al., Impact of long-term temporal trends in fine particulate matter ( $PM_{2.5}$ ) on associations of annual  $PM_{2.5}$  exposure and mortality, Environmental Epidemiology 2(2): e009 (2018), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8493859/.

<sup>&</sup>lt;sup>60</sup> See Proposed Rule, supra note 1 at 5601, Figure 2.

result based on human-selected inputs in modeling, as opposed to concrete evidence of the actual  $PM_{2.5}$  exposure concentrations based on EPA monitors, these studies do not call into question the EPA's 2020 decision to keep the NAAQS unchanged.<sup>61</sup>

In sum, the EPA's "new science" simply does not demonstrate that the current NAAQS are inadequate to protect public health. The EPA is required to consider evolving science, but the agency is not required to make changes every time it goes through such a consideration. Indeed, there will certainly be times—as in 2020 and now—when the science indicates that the current NAAQS are requisite to protect public health. Being "requisite to protect the public health" does not require standards that enable "a world that is free from all risk."<sup>62</sup> And it certainly doesn't mean the Biden Administration can use it to ram through the President's climate change policies. Without more, the EPA fails to offer sufficient scientific evidence requiring it to reject its 2020 determination not to adjust the standards.

## C. The Proposed Rule will impose real harm.

While the EPA fails to provide sufficient evidence that a lower NAAQS is requisite to protect public health, undeniable evidence exists demonstrating the real harm this decision will cause to the States. First, the Proposed Rule will devastate economic development. The lower the NAAQS standard, the more areas of the country the EPA will consider out of attainment.<sup>63</sup> And being designated a nonattainment area has serious and costly implications. For instance, one study noted that over a fifteen year period, counties targeted by Clean Air Act regulations lost \$37 billion in capital stock and \$75 billion of industrial output.<sup>64</sup> Because the EPA fails to articulate a pathway to compliance with the lower standards, the Proposed Rule raises the serious possibility that compliance will require closing

<sup>&</sup>lt;sup>61</sup> See 2020 Action, supra note 2 at 82711 (noting that "uncertainty in hybrid model predictions becomes an increasingly important issue as lower predicted concentrations are considered. This additional source of uncertainty is an important consideration, particularly when all grid cell estimates are being used to calculate the study mean concentration, and further adds to why using study reported mean concentrations from epidemiological studies that use hybrid approaches to inform conclusions on the primary PM<sub>2.5</sub> standards is a challenge").

<sup>&</sup>lt;sup>62</sup> Whitman, 531 U.S. at 494 (Breyer, J., concurring in part and in the judgment).

<sup>&</sup>lt;sup>63</sup> There are areas of the country that are not in attainment with the current standards. See PM-2.5 (2012) Nonattainment Area State/Area/County Report, EPA (data current as of Feb. 28, 2023), https://www3.epa.gov/airquality/greenbook/kncs.html#CA. And there certainly will be areas that meet the current standards, but cannot meet the lower standards of the Proposed Rule. Further, the Proposed Rule says more than just the area violating the standard will be designated as nonattainment. See Proposed Rule at 5681 (explaining that the EPA will "designate as nonattainment not only the area that is violating the pertinent standard, but also those nearby areas that contribute to the violation in the violating area").

<sup>&</sup>lt;sup>64</sup> Michael Greenstone, *The Impacts of Environmental Regulations on Industrial Activity: Evidence* from the 1970 and 1977 Clean Air Act Amendments and the Census of Manufactures, 110 J. POL. ECON. 1175, 1176 (2002).

existing manufacturing and industrial facilities. $^{65}$  Such closures will affect not only those individual businesses but also the communities that are built around them. $^{66}$ 

Second, the Proposed Rule will eliminate jobs. From 1972–1987, counties targeted by Clean Air Act regulations lost almost 600,000 jobs.<sup>67</sup> Additionally, data from a 2019 study concluded that the NAAQS "may have affected employment . . . by inducing firms to change their production technology in a way affecting labor intensity."<sup>68</sup> As we know, "change in production technology" is often just another way of saying "abandon coal." And any regulatory scheme that induces firms to swap coalgeneration for some other power source has a disparate impact on coal-producing States.

Kentucky is the seventh-largest coal-producing state in America, ranks fifth among states in recoverable coal reserves, and possesses about one-sixth of the country's operating coal mines.<sup>69</sup> But, as in other States, "Kentucky's coal production has declined as coal-fired electricity generating plants . . . were taken out of commission or converted to natural gas."<sup>70</sup> This has an impact on employment and economic well-being. In Kentucky, between 2019 and 2021, fuel employment—of which mining and extraction jobs represent 41%—decreased every year.<sup>71</sup> Eastern

<sup>66</sup> See John Russo and Sherry Lee Linkon, *The Social Costs of Deindustrialization*, YOUNGSTOWN STATE UNIVERSITY, https://ysu.edu/center-working-class-studies/social-costs-deindustrialization (discussing the widespread costs of deindustrialization); *see also* Matt Combs, *The Ripple Effect Caused by the Collapse of Coal*, THE REGISTER-HERALD (Mar. 4, 2018), https://www.registerherald.com/news/money/the-ripple-effect-caused-by-the-collapse-of-coal/article\_2ca75bbe-aa4f-5462ab27-ab047ca82cd9.html (explaining how the "downturn in the coal industry has had an ongoing . . . ripple effect across communities . . . [w]hether that county has a coal mine or not"); Alex Brown, Study: *Coal Plant Closures Will Create Local Impact*, INSIDE INDIANA BUSINESS (Mar. 29, 2021), https://www.insideindianabusiness.com/articles/inpower-study-coal-plant-closures-will-create-localimpact#:~:text=According%20to%20the%20study%2C%20the,%24354%20million%20in%20economic

%20output (discussing local communities' worries about losing population and having enough tax base to pay for schools if coal-fired power plants in Indiana are closed).

<sup>&</sup>lt;sup>65</sup> See U.S. Chamber of Commerce, Public Comment on the Environmental Protection Agency's Proposed Rule entitled "Reconsideration of the National Ambient Air Quality Standards for Particulate Matter," (Feb. 23, 2023), available at https://www.regulations.gov/comment/EPA-HQ-OAR-2015-0072-1856.

<sup>&</sup>lt;sup>67</sup> Greenstone, *supra* note 64.

<sup>&</sup>lt;sup>68</sup> Glenn Sheriff et al., *How Did Air Quality Standards Affect Employment at US Power Plants? The Importance of Timing, Geography, and Stringency*, 6 J. ASSOC. ENVIRON RESOUR. ECON. 111, 126 (2019), https://perma.cc/Q454-FS5S.

<sup>&</sup>lt;sup>69</sup> *Kentucky State Profile and Energy Estimates*, U.S. ENERGY INFORMATION ADMINISTRATION (Aug. 18, 2022), https://www.eia.gov/state/analysis.php?sid=KY [hereinafter EIA Report].

<sup>&</sup>lt;sup>70</sup> Brandon Roberts, *Increased demand for coal as economy rebounds could benefit Kentucky*, SPECTRUM NEWS (Sep. 16, 2021), https://spectrumnews1.com/ky/louisville/news/2021/09/16/demandfor-coal-increasing; *see* EIA Report, *supra* note 69 (explaining that for many years, Kentucky was third in coal production (after West Virginia and Wyoming), but now it is ranked seventh in U.S. coal production).

<sup>&</sup>lt;sup>71</sup> Energy Employment by State, U.S. Dep't of Energy (June 2022) at 120, 122, https://www.energy.gov/sites/default/files/2022-06/USEER%202022%20State%20Report\_0.pdf.

Kentucky, one of the state's largest coal producing regions, has gone from around 14,000 coal jobs in 2011<sup>72</sup> to a little less than 3,200 coal jobs in the fourth quarter of 2022.<sup>73</sup> This is a decrease of over 75%, and it has had serious consequences. Kentucky's Fifth Congressional District, which encompasses mines producing about one-third of Kentucky's coal,<sup>74</sup> has the lowest median income of any congressional district in the nation.<sup>75</sup> The district has an average poverty rate of 25.9%, which is over twice the national average.<sup>76</sup>

While § 7408(b)(1) of the Clean Air Act does not allow the "costs of achieving [the] standard" to be included in the "initial calculation,"<sup>77</sup> this does not mean the EPA is required "to eliminate every health risk, however slight, at any economic cost, however great, to the point of hurtling industry over the brink of ruin, or even forcing deindustrialization."<sup>78</sup> Indeed, the purpose of the Clean Air Act is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and *the productive capacity of its population.*"<sup>79</sup> If the COVID-19 pandemic has taught us anything, it is that so-called "public health" policies that fail to consider the economic consequences of their implementation do not, in fact, protect the general welfare of citizens.

# III. Conclusion

For these reasons, the EPA should withdraw the Proposed Rule and maintain the current NAAQS. We look forward to your response.

Respectfully submitted,

<sup>&</sup>lt;sup>72</sup> Bill Estep, 'Noticeable impact.' Coal jobs and production up in Eastern Kentucky, HERALD LEADER (Nov. 18, 2021), https://perma.cc/2PX2-MQRP (noting that this is actually an increase from the third quarter in 2020).

 <sup>&</sup>lt;sup>73</sup> Kentucky Quarterly Coal Report (2022 – Q4), Kentucky Energy and Environment Cabinet, available at https://eec.ky.gov/Energy/News-Publications/Quarterly%20Coal%20Reports/2022-Q4.pdf.
<sup>74</sup> Kentucky Coal Facts, Kentucky Energy and Environment Cabinet 17 (2017), https://perma.cc/P5Z4-J6JE.

<sup>&</sup>lt;sup>75</sup> August Benzow, *Mapping the Economic Well-being of the Nation's New Redistricted Congressional Districts*, ECONOMIC INNOVATION GROUP (Nov. 3, 2022), https://eig.org/economic-wellbeing-of-congressional-districts/.

<sup>&</sup>lt;sup>76</sup> Congressional District 5, KY., Data USA, https://datausa.io/profile/geo/congressional-district-5-ky (poverty rate based on 2020 data); Emily A. Shrider, et al., *Income and Poverty in the United States:* 2020, U.S. Census Bureau (Sep. 14, 2021), https://www.census.gov/library/publications/2021/demo/p60-273.html ("The official poverty rate in 2020 was 11.4 percent[.]").

<sup>&</sup>lt;sup>77</sup> Whitman, 531 U.S. at 465.

<sup>&</sup>lt;sup>78</sup> *Id.* at 494 (Breyer, J., concurring in part and in the judgment) (cleaned up).

<sup>&</sup>lt;sup>79</sup> 42 U.S.C. § 7401(b)(1) (emphasis added).

DANIEL CAMERON Attorney General of Kentucky

STEVE MARSHALL Attorney General of Alabama

shly Mord

ASHLEY MOODY Attorney General of Florida

TODD ROKITA Attorney General of Indiana

JEFF LANDRY Attorney General of Louisiana

ANDREW BAILEY Attorney General of Missouri

nike Hila

MIKE HILGERS Attorney General of Nebraska

TIM GRIFFIN Attorney General of Arkansas

R. Jabadon

RAÚL R. LABRADOR Attorney General of Idaho

Kind

BRENNA BIRD Attorney General of Iowa

LYNN FITCH Attorney General of Mississippi

AUSTIN KNUDSEN Attorney General of Montana

DAVE YOST Attorney General of Ohio

GENTNER F. DRUMMOND Attorney General of Oklahoma

Ken Paxton

KEN PAXTON Attorney General of Texas

JASON S. MIYARES Attorney General of Virginia

alan Wilson

ALAN WILSON Attorney General of South Carolina

SEAN D. REYES Attorney General of Utah

PATRICK MOM

PATRICK MORRISEY Attorney General of West Virginia