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1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Subject: Comments on the Environmental Protection Agency's Proposed Rule: National Ambient Air Quality Standards for the Oxides of Nitrogen; July 26, 2017; 82 Fed. Reg. 34,792; Docket No. EPA-HQ-OAR-2013-0146

Please see the attached comments of the American Petroleum Institute ("API") on the U.S. Environmental Protection Agency ("EPA" or "the Agency") Proposed Rule: National Ambient Air Quality Standards ("NAAQS") for the Oxides of Nitrogen ("NO₂").

The API represents over 625 oil and natural gas companies, leaders of a technology-driven industry that supplies most of America's energy, supports more than 9.8 million jobs and 8 percent of the U.S. economy, and, since 2000, has invested nearly \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives.

For reasons given below, API concurs with the conclusion of EPA's Administrator that "the current body of scientific evidence and the results of quantitative analyses support the degree of public health protection provided by the current 1-hour and annual primary NO₂ standards." Indeed, as explained in the attachment, the current NAAQS may be more stringent than necessary to protect public health with an adequate margin of safety. Accordingly, API concludes that, while the proposal to retain those NAAQS is reasonable, the Administrator could consider whether relaxing them would be appropriate.

If you have any questions, please contact me at (202) 682-8568 or steichent@api.org.

Sincerely,

/s/

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**COMMENTS OF THE AMERICAN PETROLEUM INSTITUTE ON PROPOSED
RULE: REVIEW OF THE PRIMARY NATIONAL AMBIENT AIR QUALITY
STANDARDS FOR OXIDES OF NITROGEN
82 Fed. Reg. 34,792 (July 26, 2017)
Docket ID No. EPA-HQ-OAR-2013-0146**

On July 26, 2017, the United States Environmental Protection Agency (“EPA” or “Agency”) proposed to retain its current primary National Ambient Air Quality Standards (“NAAQS”) for nitrogen dioxide (“NO₂”), without revision.¹ Those NAAQS include a standard, promulgated in 2010,² that is met when the 98th percentile annually of maximum daily 1-hour values, averaged over three years, is 100 parts per billion (“ppb”) NO₂ or less, and another standard, promulgated in 1971,³ that is met when the annual average NO₂ level is 53 ppb or less.⁴ Comments on EPA’s Proposal to retain these standards are due on September 25, 2017.

The American Petroleum Institute (“API”) submits these comments on the Proposal.⁵ For reasons given below, API concurs with the conclusion of EPA’s Administrator that “the current body of scientific evidence and the results of quantitative analyses support the degree of public health protection provided by the current 1-hour and annual primary NO₂ standards.”⁶ Indeed, as explained below, the current NAAQS may be more stringent than necessary to protect public health with an adequate margin of safety. Accordingly, API concludes that, while the proposal to retain those NAAQS is reasonable, the Administrator could consider whether relaxing them would be appropriate.

¹ 82 Fed. Reg. 34,792 (July 26, 2017) (“Proposal”).

² 75 Fed. Reg. 6474 (Feb. 9, 2010).

³ 36 Fed. Reg. 8186 (Apr. 30, 1971).

⁴ 40 C.F.R. § 50.11 (2016).

⁵ API is the only national trade association representing all facets of the oil and natural gas industry, which supports 9.8 million U.S. jobs and 8 percent of the U.S. economy. API’s more than 625 members include large integrated companies, as well as exploration and production, refining, marketing, pipeline, and marine businesses, and service and supply firms. Since 2000 the industry has invested nearly \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives. API and its members are dedicated to meeting environmental requirements, while economically developing and supplying energy resources to meet consumer needs.

⁶ 82 Fed. Reg. at 34,794.

I. EPA’S PROPOSAL TO RETAIN THE PRIMARY NO₂ NAAQS WITHOUT REVISION IS REASONABLE BUT RELAXATION OF THE NAAQS COULD ALSO BE JUSTIFIED.

As the Supreme Court has recognized,⁷ the NAAQS program is at the heart of the Clean Air Act (“CAA” or “Act”).⁸ Section 109(b)(1) of the Act requires the EPA Administrator to set primary NAAQS “the attainment and maintenance of which in [his] judgment . . . and allowing an adequate margin of safety, are requisite to protect the public health.”⁹ Primary NAAQS must be set at the level that is not more nor less stringent than necessary to provide this degree of protection.¹⁰ As EPA recognizes, this does not mean that NAAQS must eliminate all risk to public health.¹¹ Nor are NAAQS expected to protect against every identified biological response.¹² Instead, NAAQS protect against effects that are adverse to health.¹³ The adversity of a particular response is a policy judgment to be made by the Administrator,¹⁴ as is the approach to establishing the appropriate margin of safety.¹⁵ The Act requires that NAAQS be reviewed at least every five years, possibly resulting in appropriate revisions to them.¹⁶

The Act provides that the Administrator’s judgment in setting NAAQS be informed by the available science concerning effects on public health of the pollutant to be regulated. Specifically, the Act requires preparation of air quality criteria that “accurately reflect the latest scientific knowledge useful in indicating the kind and extent of all identifiable effects on public health . . . which may be expected from the presence of such pollutant in the ambient air, in

⁷ *Train v. NRDC*, 421 U.S. 60, 66-67 (1975).

⁸ 42 U.S.C. §§ 7401-7671q.

⁹ *Id.* § 7409(b). References hereinafter are given to sections of the Act only.

¹⁰ *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457, 475-76 (2001) (explaining that “requisite” means “not lower or higher than is necessary”).

¹¹ 82 Fed. Reg. at 34,795 (citing *Lead Indus. Ass’n v. EPA*, 647 F.2d 1130, 1156 n.51 (D.C. Cir. 1980)).

¹² *See, e.g., Lead Indus.*, 647 F.2d at 1144, 1184 (affirming the lead NAAQS after acknowledging that the Administrator had determined that “early stages of [erythrocyte protoporphyrin] elevation” should not be considered adverse).

¹³ *Whitman*, 531 U.S. at 473.

¹⁴ *Mississippi v. EPA*, 744 F.3d 1334, 1357 n.6 (D.C. Cir. 2013) (per curiam).

¹⁵ *Lead Indus.*, 647 F.2d at 1162.

¹⁶ CAA § 109(d)(1).

varying quantities.”¹⁷ The Act further requires consultation with a committee composed of independent scientists concerning the significance of that science.¹⁸ It also requires that the Administrator explain in a NAAQS proposal (and again in a final NAAQS rule) any important deviations from this committee’s advice.¹⁹ Although the committee may offer policy as well as scientific advice, greater deference is required for its scientific advice.²⁰

In this instance, the required air quality criteria are found in a document that EPA has labelled an Integrated Science Assessment (“ISA”).²¹ In addition, based on this document, the Agency staff have prepared a Policy Assessment (“PA”).²² Although the PA is not required by the Act, the staff intends it “to ‘bridge the gap’ between the relevant scientific evidence and technical information and the judgments required of the EPA Administrator in determining whether to retain or revise” the primary NO₂ NAAQS.²³ A Clean Air Scientific Advisory Committee (“CASAC” or “Committee”) has offered the required scientific advice on the ISA and has also offered advice on the PA.²⁴

Having considered the ISA, the PA,²⁵ CASAC’s advice and recommendations,²⁶ as well as public input in the form of comments on these documents,²⁷ the Administrator “reache[d] the

¹⁷ *Id.* § 108(a)(2).

¹⁸ *Id.* § 109(d)(2).

¹⁹ *Id.* § 307(d)(3), (6)(A).

²⁰ *Mississippi*, 744 F.3d at 1357-58.

²¹ EPA, Integrated Science Assessment for Oxides of Nitrogen – Health Criteria, EPA/600/R-15/068, (Jan. 2016), EPA-HQ-ORD-2013-0232-0046.

²² EPA, Policy Assessment for the Review of the Primary National Ambient Air Quality Standards for Oxides of Nitrogen, EPA-452/R-17-003 (Apr. 2017), EPA-HQ-OAR-2013-0146-0120.

²³ PA at ES-1.

²⁴ Letter from Dr. Ana Diez Roux, Chair, CASAC, & Dr. Elizabeth A. (Lianne) Sheppard, Chair, CASAC, Oxides of Nitrogen Primary NAAQS Review Panel, to the Hon. E. Scott Pruitt, Adm’r, EPA, EPA-CASAC-17-001 (Mar. 7, 2017), EPA-HQ-OAR-2013-0146-0055 (“2017 CASAC Letter”); Letter from Dr. Ana Diez Roux, Chair, CASAC, & Dr. H. Christopher Frey, Immediate Past Chair, CASAC, to the Hon. Gina McCarthy, Adm’r, EPA, EPA-CASAC-15-001 (Sept. 9, 2015) (“2015 CASAC Letter”), EPA-HQ-OAR-2013-0146-0053; Letter from Dr. H. Christopher Frey, Chair, CASAC, to the Hon. Gina McCarthy, Adm’r, EPA, EPA-CASAC-14-002 (June 10, 2014), EPA-HQ-OAR-2013-0146-0052.

²⁵ In the PA, the Agency’s staff recommends the Administrator “consider retaining the current primary NO₂ standards, without revision, in this review.” PA at ES-1, ES-6, 5-16, 5-15.

proposed conclusion that it is appropriate to retain the current standards, without revision, in this review,” and found “that the available evidence and information do not warrant the identification of potential alternative standards that provide a different degree of public health protection.”²⁸

These judgments are supported by the record and the applicable law.

II. THE HUMAN CLINICAL EVIDENCE INDICATES THE PRESENT NAAQS ARE MORE PROTECTIVE THAN THE ADMINISTRATOR HAS RECOGNIZED.

In explaining his decision to retain the current primary NAAQS, the Administrator indicated:

As in the last review, the clearest evidence indicates the occurrence of respiratory effects following short-term NO₂ exposures. The strongest support for this relationship comes from controlled human exposure studies demonstrating NO₂-induced increases in [airway responsiveness (“AR”)] in individuals with asthma.²⁹

The Administrator recognized that most of the human exposure studies on which he relied were considered during the last review of the NO₂ NAAQS (which led to the addition of the 100 ppb 1-hour standard), but pointed to “an updated meta-analysis that synthesizes data from these studies.”³⁰ He noted that the updated meta-analysis reported that “the majority of study volunteers, generally with mild asthma, experienced increased AR” following exposure to NO₂, but that the individual studies did not consistently report statistically significant increases in AR at NO₂ concentrations below 250 ppb.³¹ He acknowledged uncertainties in this evidence,

²⁶ CASAC advised the Administrator, “[T]he current scientific literature does not support a revision to the primary NAAQS for nitrogen dioxide.” 2017 CASAC Letter at 1. The Committee “recommend[ed] retaining, and not changing the existing suite of standards.” *Id.* at 3.

²⁷ 82 Fed. Reg. at 34,797.

²⁸ *Id.* at 34,830.

²⁹ *Id.* at 34,827.

³⁰ *Id.*

³¹ *Id.* at 34,828.

in particular “the lack of an apparent dose-response relationship and uncertainty in the potential adversity of responses.”³²

Despite the uncertainties in this information, the Administrator sought to assess how well people are protected from exposures in ambient air to exposures of 100 ppb or higher,³³ while expressing greater concern about exposures to 250 ppb or more.³⁴ Because analyses of air quality conducted by EPA staff (1) showed “almost no days” when 1-hour NO₂ concentrations exceed 100 ppb with current air quality³⁵ and (2) predicted no days when 1-hour NO₂ concentrations would be above 250 ppb and “a limited number of days” when 1-hour concentrations would be 100 ppb or higher even if air quality unexpectedly degraded to the point that the current 1-hour standard were just met,³⁶ the Administrator proposed to conclude that the evidence from human exposure studies “supports the degree of public health protection provided by the current primary NO₂ NAAQS.”³⁷ Therefore, he indicated the current primary NAAQS “provide the requisite protection of public health with an adequate margin of safety, including protection of at-risk populations, such as people with asthma.”³⁸

Although the Administrator’s interpretation of the record as supporting retention of the present NAAQS is reasonable, the evidence from human exposure studies is more uncertain than the Administrator has acknowledged. In particular, the findings of effects in resting subjects, but

³² *Id.*

³³ The Administrator explained that his focus on 100 ppb reflected his concern about possible respiratory effects from NO₂ concentrations “as low as 100 ppb, particularly in people with more severe cases of asthma than have generally been evaluated in the available NO₂ controlled human exposure studies.” *Id.*

³⁴ *Id.*

³⁵ *Id.* EPA has reported that, in 2016, no one was exposed to air quality violating either the 1-hour or the annual primary NO₂ NAAQS. *See*, EPA, Air Trends, Air Quality – National Summary, <https://www.epa.gov/air-trends/air-quality-national-summary>. NO₂ air quality is generally improving across the nation. *See* PA at 2-12.

³⁶ 82 Fed. Reg. at 34,828.

³⁷ *Id.*

³⁸ *Id.* at 34,830.

not consistently in those exposed during exercise,³⁹ calls into question the plausibility of a causal association between NO₂ and AR.⁴⁰ Similarly, the failure of studies involving a specific allergen, “which are most relevant for understanding potential effects of ambient NO₂,” to find associations between NO₂ exposure and AR increases the uncertainty that NO₂ in ambient air causes effects of concern.⁴¹ These uncertainties, together with the lack of exposure to NO₂ concentrations violating the present NAAQS with current air quality⁴² and a downward trend in NO₂ emissions that should continue,⁴³ mean that the present NAAQS are even more protective than the Administrator has recognized.

III. THE EPIDEMIOLOGICAL EVIDENCE INVOLVING SHORT-TERM NO₂ EXPOSURE INDICATES THE PRESENT NAAQS ARE MORE PROTECTIVE THAN THE ADMINISTRATOR HAS RECOGNIZED.

The Administrator also cited epidemiological studies as providing “additional supporting evidence” of associations between NO₂ exposures and “a range of asthma-related respiratory effects, including effects serious enough to result in emergency room visits or hospital admissions.”⁴⁴ With regard to epidemiological studies involving short-term exposures, he explained they “are generally consistent with the epidemiologic studies that were available in the last review.”⁴⁵ He characterized these studies as “provid[ing] consistent evidence for asthma-related emergency department visits and hospital admissions with exposure to NO₂ in locations

³⁹ *Id.* at 34,806.

⁴⁰ Gradient, Comments on EPA’s Policy Assessment for the Review of the Primary National Ambient Air Quality Standards for Nitrogen Dioxide (External Review Draft) at 2, 14 Tbl. 2 (Dec. 6, 2016) (Attachment 1 to API comments on same (Dec. 8, 2016), EPA-HQ-OAR-2013-0146-0018) (“Gradient on PA”); Gradient, Comments on EPA’s Integrated Science Assessment for Oxides of Nitrogen – Health Criteria (Second External Review Draft) at 22-25 (Apr. 23, 2015) (Attachment 1 to API comments on same (Apr. 30, 2015), EPA-HQ-ORD-2013-0232-0042) (“Gradient on ISA”). Although Gradient’s comments address drafts of the PA and ISA, the concerns they express remain valid.

⁴¹ Gradient on PA at 14, Tbl. 2; Gradient on ISA at 36, Tbl. 3-1

⁴² See note 35, *supra*.

⁴³ See EPA, Our Nation’s Air: Status and Trends Through 2016, https://gispub.epa.gov/air/trendsreport/2017/#naaqs_trends (use drop-down menu to select a “Nitrogen Dioxide (NO₂)” NAAQS).

⁴⁴ 82 Fed. Reg. at 34,827.

⁴⁵ *Id.*

likely to have violated the current standards over at least parts of study periods (based on the presence of relatively precise and generally statistically significant associations across several studies).”⁴⁶ However, the Administrator recognized the studies “do not provide support for associations with asthma-related hospital admissions or emergency department visits in locations that would have clearly met the current standards” because the monitors used for measuring the NO₂ concentrations reported in the studies likely recorded lower NO₂ concentrations than the near-road monitors that are currently used to judge compliance with the NAAQS.⁴⁷ Accordingly, the Administrator concluded:

Meeting the current 1-hour standard is expected to maintain ambient NO₂ concentrations below those present in locations where key U.S. and Canadian epidemiologic studies reported precise and statistically significant associations between short-term NO₂ and asthma-related hospitalizations.⁴⁸

API agrees with the Administrator that it is important to adjust for the use of new near-road monitors when considering whether the areas in which these epidemiological studies were conducted would have attained the current NAAQS. As explained in the PA, both the 98th percentile values of daily maximum 1-hour NO₂ concentration and the annual average NO₂ concentrations are generally higher at the near-road monitors than at other monitors.⁴⁹

⁴⁶ *Id.* at 34,829.

⁴⁷ *Id.*

⁴⁸ *Id.* Although this statement addresses hospital admissions specifically, it is clear from the context that it applies equally to studies of emergency department visits. *See, e.g., id.* (noting that U.S. and Canadian studies “do not provide support for associations with asthma-related hospital admissions *or emergency department visits*” except where the current NAAQS was likely violated) (emphasis added).

The focus on studies conducted in the United States and Canada is a long-standing Agency practice. *See, e.g.,* EPA, Policy Assessment for the Review of the Particulate Matter National Ambient Air Quality Standards at 2-10, EPA 452/R-11-003 (Apr. 2011), EPA-HQ-OAR-2013-0146-0113; EPA, Integrated Review Plan for the Primary National Ambient Air Quality Standard for Nitrogen Dioxide at 13 (Aug. 2007), https://www3.epa.gov/ttn/naaqs/standards/nox/data/20070823_nox_review_plan_final.pdf. It reflects the fact that population and health care system characteristics outside of North America may differ sufficiently from those in the United States to call into question the relevance of studies conducted elsewhere for assessing public health risks here. It should be noted that characteristics of co-pollutants and relevant socioeconomic factors such as diet and exercise regimens are also likely to differ between the United States and other parts of the world.

⁴⁹ PA at 2-21.

Compliance determinations for the NAAQS will therefore usually be based on values measured by the near-road monitors. Because the epidemiological studies under consideration by the Administrator do not reflect values at those monitors, adjusting the air quality reported in those studies to account for the new monitors is reasonable. API concurs that, taking into account the existence of these monitors as well as the potential for confounding by co-pollutants in the key epidemiological studies of short-term NO₂ exposures, it cannot be said with confidence that associations have been demonstrated between NO₂ exposure and asthma-related hospital admissions or emergency department visits in any area attaining the current primary NO₂ NAAQS.

Limitations of the epidemiological studies of asthma-related hospital admissions and emergency department visits that are not acknowledged in the Proposal further call into question the ability of these studies to demonstrate any effects where the current NAAQS are attained. “It is clear that the few positive findings in some [short-term] epidemiology studies are not strong enough to support the causal determination in light of these studies’ major uncertainties and limitations.”⁵⁰ Despite the impression left by the ISA, the epidemiological studies do not provide consistent evidence of an association between NO₂ exposure and asthma-related hospital admissions and emergency room visits.⁵¹ By focusing on the results of the analysis at the lag that had the “most positive and statistically significant association,” ignoring temporal differences in the lag at which the strongest association was found, and failing to discuss null associations, the ISA provided the Administrator with a “skewed” and “[un]balanced” picture of the scientific record as a whole.⁵² If these factors were taken into account, the purported risk of asthma-related hospital admissions or emergency department visits associated with short-term NO₂ exposure

⁵⁰ Gradient on PA at 2.

⁵¹ Gradient on ISA at 11.

⁵² *Id.* at 12-13.

would be less certain. Accordingly, the Administrator's confidence that the present NAAQS provide the requisite protection should be greater.⁵³ Indeed, the Administrator should consider whether even a relaxed standard would provide the requisite public health protection.

IV. THE EPIDEMIOLOGICAL EVIDENCE INVOLVING LONG-TERM NO₂ EXPOSURE INDICATES THE PRESENT NAAQS ARE MORE PROTECTIVE THAN THE ADMINISTRATOR HAS RECOGNIZED.

The Administrator indicated that evidence associating long-term NO₂ exposure with asthma development in children has become "stronger," but that "uncertainties remain regarding the degree to which estimates of long-term NO₂ concentrations in these studies are serving primarily as surrogates for exposures to the broader mixture of traffic-related pollutants."⁵⁴

Despite these uncertainties, the Administrator assessed the protection provided by the current NAAQS taking into account both the 1-hour and annual standards.⁵⁵ He noted that the 1-hour NAAQS would be the controlling standard. Thus, attaining the 100 ppb 1-hour standard "would be expected to maintain annual average NO₂ concentrations well-below [*sic*] the 53 ppb level of

⁵³ Although the Administrator relies explicitly on the human exposure studies and the epidemiological studies of hospital admissions and emergency department visits in explaining his conclusion that retention of the present NAAQS will provide the requisite public health protection, he also refers to discussion in the ISA of epidemiological studies of short-term NO₂ exposure and "an array of respiratory outcomes related to asthma" that he asserts demonstrate "coherence and biological plausibility" of asthma-related outcomes. 82 Fed. Reg. at 34,804. The discussion of this evidence in the ISA presents a false impression of such coherence and biological plausibility. In fact, "the evidence for lung function and respiratory symptoms is decidedly mixed, both within and between studies discussed in the ISA." Gradient on ISA at 13; *see also id.* at 13-19. Furthermore, the evidence of pulmonary inflammation "do[es] not support inflammation as a likely mode of action for increased [hospital admissions] and [emergency department] visits for asthma." *Id.* at 32; *see also id.* at 31-34. The recent studies that the Administrator references as including "strong exposure assessment," 82 Fed. Reg. at 34,804, do not provide consistent evidence of associations between short-term NO₂ exposure and respiratory effects. Gradient on ISA at 20-21, 28-29. Nor can recent studies be used to rule out co-pollutant confounding confidently. *Compare* 82 Fed. Reg. at 34,804-05 with Gradient on ISA at 28-29.

⁵⁴ 82 Fed. Reg. at 34,827. The Administrator also indicated that the epidemiological evidence associating NO₂ exposure with some non-respiratory effects has also become stronger, but notes that this evidence "remains subject to greater uncertainty than the evidence of asthma-related respiratory effects." *Id.* In fact, the ISA indicated that the evidence does not establish a likely causal association between NO₂ exposure and any non-respiratory effects. *See* ISA at lxxxii. CASAC concurred with this assessment of causality. 2015 CASAC Letter at 1.

⁵⁵ 82 Fed. Reg. at 34,829. EPA has previously taken the protection provided by a NAAQS with one averaging time against effects associated with a different averaging time. For example, when promulgating a primary NAAQS for sulfur dioxide ("SO₂") with a 1-hour averaging time, the Agency revoked the then-existing annual and 24-hour NAAQS, explaining, "[A] 1-hour standard set at 75 ppb will have the effect of generally maintaining 24-hour and annual SO₂ concentrations well below the levels of the current 24-hour and annual standards." 75 Fed. Reg. 35,520, 35,550 (June 22, 2010).

the annual standard.”⁵⁶ As a result, the annual average NO₂ concentration would generally be below 35 ppb when the 1-hour standard was attained.⁵⁷

Considering this information, the Administrator concluded;

While available epidemiologic studies conducted in the U.S. and Canada consistently report associations between long-term NO₂ exposures and asthma development in children in locations likely to have violated the current standards over at least parts of study periods, those studies do not indicate such associations in locations that would have clearly met the current annual and 1-hour standards.⁵⁸

The Administrator acknowledged “appreciable uncertainty” that revising the NAAQS to be more stringent would reduce asthma development.⁵⁹ Thus, he determined that a NAAQS more stringent than the present one would not be “appropriate.”⁶⁰

As was the case for the epidemiological studies of short-term NO₂ exposure, the studies on long-term NO₂ exposure do not take into account the new near-roadway monitors that will be used to assess compliance.⁶¹ API again agrees with the Administrator’s decision to take those monitors into account and to conclude that the epidemiological studies were not conducted in areas that clearly attained the current NAAQS. Moreover, as was the case for the epidemiological studies of short-term NO₂ exposure, the ISA does not adequately capture the uncertainty concerning associations reported in the epidemiological studies of long-term NO₂ exposure. This once again calls into question the ability of these studies to demonstrate effects when the current NAAQS are attained. Briefly, “The ISA does not evaluate available epidemiology studies in a systematic, balanced, and rigorous manner; instead, it emphasizes

⁵⁶ 82 Fed. Reg. at 34,829.

⁵⁷ *Id.* at 34,829-30.

⁵⁸ *Id.* at 34,829.

⁵⁹ *Id.* at 34,830.

⁶⁰ *Id.*

⁶¹ *Id.* at 34,829.

studies with positive findings while overlooking studies with null results.”⁶² Furthermore, the ISA fails to address between-study inconsistencies.⁶³ As a result, the possibility of health effects associated with long-term exposure to NO₂ is even more uncertain than the Administrator recognized. Thus, the Administrator’s decision not to revise the NAAQS on the basis of the long-term exposure studies is sound. Again, the uncertainty of the evidence suggests that the Administrator could consider relaxing the NAAQS.

V. CONCLUSION.

As the Administrator recognized, the current primary NO₂ NAAQS protect the public health as required by section 109(b) of the Act. Indeed, those standards are even more protective than he had acknowledged. Thus, while the Proposal to retain those NAAQS is reasonable, the Administrator could consider whether the NAAQS could be relaxed without becoming less stringent than necessary to protect the public health with an adequate margin of safety.

⁶² Gradient on ISA at 38. *See also id.* at 38-40.

⁶³ *Id.* at 40.