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VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

April 27, 2016

Gina McCarthy Administrator United States Environmental Protection Agency Ariel Rios Building 1200 Pennsylvania Avenue, NW Washington, D.C. 20460

Re: Clean Air Act Notice of Intent to Sue for Failure to Complete a Thorough Review of the Air Quality Criteria for Sulfur Oxides and the National Ambient Air Quality Standards for Sulfur Dioxide and Nitrogen Oxides, to Make Such Revisions to the Sulfur Oxides Air Quality Criteria and the Sulfur Dioxide and Nitrogen Oxides National Ambient Air Quality Standards as May Be Appropriate, to Promulgate Such New National Ambient Air Quality Standards for Sulfur Oxides and Nitrogen Oxides as May Be Appropriate, and to Publish Notice of Such Actions in the Federal Register

Dear Administrator McCarthy:

On behalf of the Center for Biological Diversity and the Center for Environmental Health, I am writing to provide you with notice that we intend to sue you for your failure to complete a mandatory review of the air quality criteria for Sulfur Oxides (SO_x) and the primary National Ambient Air Quality Standards (NAAQS) for Sulfur Dioxide (SO₂) and Nitrogen Oxides (NO_x), to revise the SO_x air quality criteria and SO₂ and NO_x NAAQS as may be appropriate, to promulgate such new NAAQS for SO_x and NO_x as may be appropriate, and to publish notice of such actions in the Federal Register. 42 U.S.C. § 7409(d)(1) provides you with a non-discretionary duty to review and, as appropriate, revise the air quality criteria for SO_x and the NAAQS for SO₂ and NO_x, and, if necessary, promulgate additional NAAQS for SO_x and NO_x. Moreover, notice of any revisions to such air quality criteria and notice of any new or newly modified NAAQS must be published in the Federal Register. See 42 U.S.C. §§ 7408(d),

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7607(d). We intend to bring a suit sixty days from the date of this letter, or shortly thereafter, under section 304 of the federal Clean Air Act, 42 U.S.C. § 7604, for your failure to perform the non-discretionary duties outlined in 42 U.S.C. §§ 7408(d), 7409(d)(1), & 7607(d). The suit will seek injunctive and declaratory relief, the cost of litigation, and may seek other relief.

Two sections of the Clean Air Act govern the establishment and revision of air quality criteria and NAAQS. Section 108 (42 U.S.C. § 7408) requires EPA to identify pollutants that "may reasonably be anticipated to endanger public health and welfare" and to issue air quality criteria for those pollutants. Section 109 (42 U.S.C. § 7409) requires EPA to promulgate primary and secondary NAAQS for pollutants identified under section 108.

Section 109 further requires that "at five year intervals" EPA "shall complete a thorough review of the criteria published under [section 108] and the national ambient air quality standards promulgated under this section and shall make such revisions in such criteria and standards and promulgate such new standards as may be appropriate." 42 U.S.C. § 7409(d)(1). Despite this clear requirement, it has been more than five years since EPA last completed such a review to update the air quality criteria for SO_x and NAAQS for SO_x and NO_x .

 SO_x are a group of gases formed primarily from the combustion of fuel containing sulfur, such as coal. SO_x are also released during the manufacture of metals and in some oil refining processes. SO_2 is the sulfur oxide that EPA has used as a surrogate parameter for regulation of all SO_x emissions since first promulgating NAAQS for SO_2 in 1971. See 36 Fed. Reg. 8186.

SO₂ emissions have a variety of negative effects on both human health and the environment. SO₂ pollution contributes to respiratory problems, particularly for children and the elderly, and aggravates existing heart and lung diseases. SO₂ emitted over a short period can be harmful to asthmatics. SO₂ also contributes to the formation of acid rain, which damages trees, crops, historic buildings, and monuments and alters the acidity of both soils and water bodies. In addition, because SO₂ emissions can be transmitted long distances, they contribute to visibility impairment problems in many national parks and wilderness areas. Office of Air Quality Planning and Standards, EPA, "SO₂ – How Sulfur Dioxide Affects the Way We Live & Breathe" (Nov. 2000), available at http://www.epa.gov/air/urbanair/so2/index.html.

EPA's last review of the air quality criteria document, which EPA now calls an integrated science assessment, for SO_x was completed no later than September 12, 2008. 73 Fed. Reg. 53,002 (Sept. 12, 2008). Following the issuance of the SO_x air quality criteria document, EPA revised the primary SO_x NAAQS no later than June 22, 2010. 75 Fed. Reg. 35,520 (June 22, 2010). More than five years has passed since EPA completed its last review and revision of the SO_x criteria document and NAAQS but EPA has not fulfilled its mandatory duty to review thoroughly and update as necessary this air quality criteria and NAAQS. According to the clear statutory deadlines, such a review should have been completed by no later than June 22, 2015. Thus, EPA's ongoing failure to complete this review and to make the necessary revisions to the NAAQS is contrary to Section 109(d)(1) of the Clean Air Act. See 42 U.S.C. § 7409(d)(1).

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Nitrogen oxides (NO_x) , such as NO_2 , are highly reactive gases emitted primarily through the combustion of fossil fuels in mobile and stationary sources. NO_x are a precursor of ground-level ozone and particulate matter pollution and NO_x emissions also play a role in the accumulation of excess nitrates in drinking water, the eutrophication of aquatic ecosystems and nitrification of soils, global climate change, increases in toxic pollutant levels, and the depletion of the ozone layer. 70 Fed. Reg. 8888-89. EPA has used NO_2 as a surrogate for NO_x since first promulgating NAAQS for NO_2 in 1971. See 36 Fed. Reg. 8186.

EPA last reviewed and revised the primary NO_x NAAQS no later than February 9, 2010. 75 Fed. Reg. 6,474 (Feb. 9, 2010). EPA's last review of the air quality criteria document, which EPA now calls an integrated science assessment, for NO_x was completed no later than January 28, 2016. 81 Fed. Reg. 4,910 (Jan. 28, 2016). The 2016 ISA demonstrates that the health impacts from NO₂ are worse than was known when EPA set the 2010 NAAQS. For example, for setting the 2010 NAAQS, the science was sufficient to infer a likely causal relationship between short-term exposure NO₂ and respiratory effects. Integrated Science Assessment for Oxides of Nitrogen – Health Criteria, January 2016 (2016 ISA) at lxxxii. However, the 2016 ISA solidifies this finding such that EPA can definitively say there is a causal relationship between short term NO₂ exposure and respiratory effects. There are now controlled human exposure studies showing NO₂ can trigger asthma attacks. 2016 ISA at lxxxiii. There is also now consistent evidence showing long-term exposure can cause the development of asthma. 2016 ISA at lxxxiv.

Moreover, for the setting of the 2010 NAAQS, the science was inadequate to infer a relationship between short-term NO₂ exposure and cardiovascular effects. In the 2016 ISA, however, the science now suggests that there is a causal relationship between NO₂ and cardiovascular effects. Integrated Science Assessment for Oxides of Nitrogen – Health Criteria, January 2016 (2016 ISA) at lxxxii. The same is true for long-term exposure and cardiovascular effects, diabetes, birth outcomes, total mortality and cancer. *Id.* These suggestions of a causal relationship are very important. NAAQS setting is not like a tort case where EPA must prove causation by a preponderance of the evidence. Rather, Congress' directive that EPA provide an adequate margin of safety is meant to address uncertainties associate with inconclusive scientific and technical information. 2016 ISA at lxxi. This new science, however, provides no protection to the American public until EPA uses the science to revise the NAAQS.

More than five years has passed since EPA completed its last review and revision of the NO_x NAAQS but EPA has not fulfilled its mandatory duty to review thoroughly and update as necessary this NAAQS. According to the clear statutory deadlines, such a review should have been completed by no later than February 9, 2015. Thus, EPA's ongoing failure to complete this review and to make the necessary revisions to the NAAQS is contrary to Section 109(d)(1) of the Clean Air Act. See 42 U.S.C. § 7409(d)(1).

In keeping with the requirements of federal regulations, you are hereby notified that the full names and addresses of the persons giving the notice are:

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The Center for Biological Diversity 1212 Broadway, Suite 800 Oakland, CA. 94612 Attn: Jonathan Evans

Tel: (510) 844-7100 x318

Center for Environmental Health 2201 Broadway, Suite 302 Oakland, CA 94612 Attn: Caroline Cox

Tel: Tel: (510) 655-3900

However, if you wish to discuss this matter, please contact the undersigned counsel at the address indicated below.

The Center for Biological Diversity and the Center for Environmental Health and their counsel have a policy of trying to resolve these matters without the need for litigation. Therefore, we look forward to you contacting us at 303-442-4033 to resolve this matter. However, if we do not hear from you in 60 days, we will be forced to assume that you are not interested in settling this matter and will file our complaint.

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Sincerely,

Robert Ukeiley

Counsel for the Center for Biological Diversity and the Center for Environmental Health