UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

THE HUMANE SOCIETY OF THE UNITED STATES 1255 23rd Street NW Washington, DC 20037, ASSOCIATION OF IRRITATED RESIDENTS 29389 Fresno Avenue Shafter, CA 93263, ENVIRONMENTAL INTEGRITY PROJECT 1000 Vermont Avenue NW, Suite 1100 Washington, DC 20005, FRIENDS OF THE EARTH 1101 15th Street NW, 11th Floor Washington, DC 20005, SIERRA CLUB 2101 Webster St. Ste. 1300 Oakland, CA 94612, *Plaintiffs,* v. E. SCOTT PRUITT, in his official capacity, ADMINISTRATOR, UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, and UNITED STATES ENVIRONMENTAL PROTECTION AGENCY 1200 Pennsylvania Avenue NW Washington, D.C. 20460, *Defendants.*	Civil Action No. 17-1719 **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF** Clean Air Act, 42 U.S.C. § 7604

INTRODUCTION

1. Plaintiffs The Humane Society of the United States, Association of Irritated Residents, Environmental Integrity Project, Friends of the Earth, and Sierra Club ("Plaintiffs") seek to compel the U.S. Environmental Protection Agency ("EPA") to respond to Plaintiffs'

2009 petition for rulemaking ("Petition"). The Petition requests that EPA regulate concentrated animal feeding operations ("CAFOs") as a source of air pollution under the Clean Air Act, 42 U.S.C. § 7401 *et seq*. *See* Petition (attached as Ex. 1). EPA has unreasonably delayed its response to the petition, and this delay allows serious, preventable harms to public health and the environment to persist.

2. Concentrating and feeding large populations of animals in one location generates enormous quantities of biological waste products, including feces and urine. CAFOs emit dangerous air pollutants that contribute to climate change, threaten public health and safety, and harm the environment.

3. CAFOs are one of the largest sources of air pollution in the country.

4. CAFO air pollution is nationally significant, noxious, and dangerous to public health and welfare, wildlife and other animals, and the environment. The U.S. Centers for Disease Control and Prevention consider airborne emissions from CAFOs to "constitute a public health problem." Emissions from CAFOs cause serious and life-threatening health problems. These include respiratory illnesses, irritation to the eyes, nose, and throat, anxiety and depression, memory loss, and heart disease. These effects are amplified in vulnerable populations like children and the elderly.

5. CAFO air pollution has led to death. The U.S. Court of Appeals for this Circuit recently vacated a rule exempting CAFOs from reporting their noxious emissions based, in part, on serious public health impacts "not refuted by EPA." *Waterkeeper Alliance v. EPA*, 853 F.3d 527, 536 (D.C. Cir. 2017). The Court noted, "when manure pits are agitated for pumping, hydrogen sulfide, methane, and ammonia are rapidly released from the manure and may reach

toxic levels or displace oxygen, increasing the risk to humans and livestock. That risk isn't just theoretical; people have become seriously ill and even died as a result of pit agitation." *Id.*

6. CAFOs also significantly degrade the environment. In water, CAFO air pollutants cause "dead zone" conditions that harm or kill sensitive plant and aquatic life populations, and reduce biodiversity. On land, CAFO pollution threatens species diversity, harms sensitive crops, and can leave plants susceptible to insects and fungal infections, drought, frost, and displacement from invasive species. Globally, CAFO air pollutants exacerbate climate change.

7. Haze from CAFOs drastically reduces visibility, creates significant losses of public enjoyment of wildlife and wilderness areas, and harms tourism dependent economies.

8. Air pollutants can be released from a number of on-site sources at CAFOs. The feedlots and confinement buildings that hold a mass concentration of animals are large air emissions sources. These typically have a roof, walls, or removable walls, and can include large ventilation fans that expel gases and particulates from the inside.

9. Waste accumulated and stored at CAFOs is also a major on-site source of air emissions. After collecting in a management system, the waste can remain there for some time, until it is transported and applied to nearby fields through spraying, spreading, or injection. Such land disposal practices are also an on-site source of air pollutants.

10. Waste from pig or dairy CAFOs often collects in liquid waste management systems. These systems are frequently open and uncovered and release gases into the ambient environment. Waste from chicken and turkey CAFOs often collects in dry form in uncovered waste piles, waste piles covered with a tarp or other soft covering, or a roofed shed lacking some or all walls. Regardless of the method of managing the waste, gaseous and particulate matters continuously release into the air.

11. Gas and particulate matter releases also result from excess waste disposal onto land owned or controlled by CAFOs, such as through application of aggregated animal wastes (often by spraying or other broadcast methods). Both agitation and transportation of animal wastes cause release of pollutants into the environment.

12. According to EPA, thousands of animal agriculture facilities may emit 100 pounds or more ammonia gas per day, or over a million tons per year. This is several orders of magnitude larger than the 23,735 annual tons of ammonia emitted from the chemical manufacturing industry, as EPA calculated in its 2011 National Emissions Inventory.

13. The Petition asks EPA to address air pollution from CAFOs by (1) listing CAFOs as a category of sources under the Clean Air Act; (2) promulgating standards of performance for new CAFOs; and (3) prescribing regulations for performance standards for existing CAFOs.[1]

14. The Agency's nearly eight-year delay in responding to the Petition constitutes an unreasonable delay in violation of the Clean Air Act, all the while allowing unregulated and unabated CAFO pollution to continue to impair significantly the public health and environment.

JURISDICTION AND VENUE

15. This Court has jurisdiction over this action pursuant to the 42 U.S.C. § 7604, as well as 28 U.S.C. § 1331 (federal question) and 28 U.S.C. § 1346 (United States as Defendant).

16. The Clean Air Act requires that plaintiffs provide written notice of intent to bring suit for unreasonable delay, 180 days prior to commencement of such an action. 42 U.S.C. §

[1] Used here, CAFO is a term defined under the federal Clean Water Act, meaning any lot or facility with no sustained crops or other vegetation where animals (other than aquatic animals) have been, are, or will be stabled or confined and fed or maintained for 45-days or more in any 12-month period, where the facility either fits a certain threshold population, and/or additional operational characteristics show that the facility is a significant contributor of pollutants to jurisdictional waters. 40 C.F.R. § 122.23(b). The Clean Air Act has no definition for such large, industrial animal production facilities.

7604(a); *see Humane Soc'y of the U.S. v. McCarthy*, 209 F. Supp. 3d 280 (D.D.C. 2016). On October 7, 2016, Plaintiffs notified EPA of their intent to file suit for unreasonable delay in responding to the Petition. *See* Notice Letter (attached as Ex. 2). The 180-day period expired on April 5, 2017.

17. Venue lies in this judicial district because the Clean Air Act provides that "an action to compel agency action referred to in section 7607(b) of this title which is unreasonably delayed may only be filed in a United States District Court within the circuit in which such action would be reviewable under section 7607(b) of this title." 42 U.S.C. § 7604(a). The referenced "section 7607(b)" provides that "[a] petition for review of . . . any standard of performance or requirement under section 111 . . . may be filed only in the United States Court of Appeals for the District of Columbia." *Id*. § 7604(b)(1). Because emissions standards for CAFOs would be set under section 111 of the Clean Air Act, a petition for review of such regulations must be filed in the U.S. Court of Appeals for the District of Columbia. *Id*. The proper venue for an action for unreasonable delay in promulgating such regulations is the U.S. District Court for the District of Columbia.

18. Venue also vests in this Court pursuant to 28 U.S.C. § 1391(e) because one or more of the Plaintiffs and the Defendant reside in the District of Columbia.

PARTIES

19. Plaintiff THE HUMANE SOCIETY OF THE UNITED STATES:

a. The Humane Society of the United States ("HSUS") is a nonprofit organization headquartered in the District of Columbia and incorporated in Delaware. HSUS is the largest animal protection organization in the United States, representing millions of members and constituents. HSUS has members throughout the United States who suffer harm from CAFO

emissions. Since its establishment in 1954, HSUS has advocated against the inhumane treatment of animals raised for food. To that end, HSUS actively advocates for better laws to protect animals and the environment; conducts mission-specific campaigns; and advocates against practices that injure, harass, or otherwise harm animals, including farm animals and wildlife. Specifically, with its mission to attack the root causes of distress and crisis for animals—including large corporations and factory farms—HSUS endeavors to raise awareness about the hazardous substances, including air pollutants, released by CAFOs. HSUS actively campaigns to regulate air pollutants discharged by CAFOs through efforts with EPA, Congress, and the courts.

b. HSUS has a procedural interest in ensuring that EPA fully considers the information that HSUS submitted as part of the Petition, and in participating in any rulemaking activity undertaken in response to the Petition. HSUS also has an organizational interest in ensuring that the environmental, human health and welfare, and animal health and welfare risks of CAFO air emissions are fully considered by EPA.

c. HSUS and its members have health, professional, scientific, educational, spiritual, aesthetic, environmental, and other interests in reduced emissions from CAFOs. HSUS members live in close proximity to CAFOs, and the air pollution coming from the nearby CAFOs causes serious negative impacts on their health, welfare, and livelihoods. Emissions from nearby CAFOs cause HSUS members to suffer adverse health impacts, and cause members to avoid spending time outdoors. HSUS members enjoy outdoor activities like hiking, bicycling, and kayaking, all of which are impaired by strong odors and health effects caused by CAFO emissions. HSUS members also enjoy viewing, studying, and otherwise interacting with wildlife. Air emissions from CAFOs have damaged and will continue to damage wildlife habitat and harm wildlife populations, reducing HSUS members' abilities to enjoy wildlife interactions.

d. EPA has failed in its duty to consider the Petition to control air pollution from CAFOs, which would reduce or eliminate the harms to HSUS and its members' interests. By failing to respond to the Petition (and by failing to list CAFOs as a category of sources), EPA is failing to improve air quality in the United States and to reduce the harms from ammonia, hydrogen sulfide, greenhouse gas, and other air emissions. This directly harms HSUS's interests in stemming CAFO air pollution. A favorable decision here, requiring EPA to make a decision on the Petition to adopt emissions standards for CAFOs, will directly redress the harms to HSUS and its members.

e. HSUS and its members also suffer procedural and informational injuries related to EPA's unreasonable delay in responding to the Petition. EPA's lengthy delay violates HSUS and its members' procedural rights to have the opportunity to participate in rulemaking through comments, information sharing, and advocacy. If EPA begins a regulatory process, HSUS and its members will participate in this process, will contribute to and gain information from the proceedings, and will advocate for controlling emissions from CAFOs.

20. Plaintiff ASSOCIATION OF IRRITATED RESIDENTS:

a. Association of Irritated Residents ("AIR") is a California non-profit corporation with members residing in Kings, Tulare, Kern, Fresno, and Stanislaus counties, all of which are located in the San Joaquin Valley air basin. The San Joaquin Valley air basin regularly falls short of meeting Clean Air Act air quality standards for ozone and fine particulate matter. Ammonia and volatile organic compound emissions from CAFOs contribute significantly to the air basin's nonattainment. Dairy and broiler chicken waste accounts for the largest and eleventh-largest sources of volatile organic compound emissions, respectively, in the San Joaquin Valley.

b. AIR's mission is to advocate for clean air and environmental health in the San Joaquin Valley. AIR has a long history of advocating for Clean Air Act regulation of agriculture, dating back as early as 2001. That year, AIR successfully sued EPA to force disapproval of California's Title V operating permit programs, because California exempted agricultural equipment from clean air permitting. AIR then helped to pass California Senate Bill 700, which removed a blanket exemption that had excused all agricultural sources from the Clean Air Act's New Source Review requirements. In addition, AIR challenged, in an administrative process and in court, EPA's entrance into a consent agreement with the CAFO industry in which EPA agreed not to enforce CAFO participants' past violations of air emissions reporting statutes. AIR has also advocated before the California Air Resources Board for regulation of CAFO greenhouse gas emissions.

c. The health, environmental, and aesthetic interests of AIR and its members are affected by CAFO air pollution. AIR members currently reside, work, recreate, and raise their families in the San Joaquin Valley. Because of their proximity to clusters of CAFOs, AIR members breathe levels of ozone and fine particulate matter that exceed public health standards. The exposure to emissions causes AIR members and their families to suffer adverse health impacts, and worry about health effects to come. The high air pollution concentrations also cause AIR members to curtail physical exercise and other outdoor activities, which lessens their quality of life and impairs recreational interests. In addition, on summer days, haze from ozone often blocks AIR members' views of the Sierra Nevada, Sierra Madre, and Coastal Range Mountains from the San Joaquin Valley floor.

d. AIR members are harmed by current levels of air pollution, and will continue to be harmed because of EPA's ongoing failure to respond to the Petition. By failing to

respond to the Petition, EPA is avoiding a step essential to improving air quality in the San Joaquin Valley. This avoidance directly harms AIR's interests in stemming air pollution from CAFOs. A favorable decision here, requiring EPA to make a decision on the Petition to adopt emissions standards for CAFOs, will directly redress the harms to AIR and its members.

e. AIR and its members also suffer procedural and informational injuries related to EPA's unreasonable delay in undertaking rulemaking procedures in response to the Petition. EPA's lengthy delay in responding to the Petition violates the procedural rights of AIR and its members. If EPA begins a regulatory process, AIR and its members will participate.

21. Plaintiff ENVIRONMENTAL INTEGRITY PROJECT:

a. Environmental Integrity Project ("EIP") is a non-profit organization headquartered in Washington, D.C, with offices and staff in Texas, Pennsylvania, and Vermont. EIP is dedicated to educating the public about air pollution from industrial livestock operations and advocating for more effective enforcement of environmental laws, including the Clean Air Act. Since 2002, EIP has worked to improve federal and state regulation of CAFOs and to improve air and water quality in areas significantly impacted by these facilities' pollution, focusing on the Upper Midwest and the Mid-Atlantic. EIP advocates for application of clean air laws to industrial animal confinement operations nationwide, because these operations endanger public health and welfare with their unrestricted pollution emissions. EIP has a strong organizational interest in strengthening the Clean Air Act's regulation of CAFOs, including the regulation of their ammonia pollution, and is injured by EPA's failure to respond to the Petition.

b. EIP also has significant interest in information related to the CAFO industry. One of EIP's goals is to help the public access environmental data for use in community-based advocacy efforts. To that end, EIP works to gather and analyze pollution data

and provide this information to the public. EIP has also been actively engaged in EPA's now-stalled ongoing process to develop accurate tools to estimate CAFO air pollution.

22. Plaintiff FRIENDS OF THE EARTH:

a. Friends of the Earth ("FoE") is a tax-exempt environmental advocacy organization founded in 1969 and incorporated in the District of Columbia. FoE has more than 900,000 members and activists in all 50 states. FoE's mission is to defend the environment and champion a healthy and just world. To this end, FoE has a core program promoting policies and actions to prevent air pollution and minimize the negative impacts of pollution on human health. FoE relies on sound science and uses law to create and advocate for innovative strategies to conserve natural resources and protect public health and the environment.

b. Addressing climate change and reducing greenhouse gases are two of FoE's core projects. For instance, working with the Friends of the Earth International, FoE engages in international climate change negotiations and advocacy efforts to support the adoption of policies to reduce emissions in the United States and worldwide.

c. FoE uses many tools to accomplish its greenhouse gas reduction goals. FoE works to promote broad adoption of clean, efficient, low-greenhouse-gas technologies. FoE successfully petitioned EPA to make fuel economy labels on new vehicles more accurate, promoting the sale of fuel-efficient vehicles. FoE also initiated a campaign called *Scorched Earth*, in which FoE filed petitions to force the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, and National Oceanic and Atmospheric Administration to create planning and mitigation measures to address global warming impacts on America's national parks, forests, wildlife refuges, and marine sanctuaries. Other FoE actions concerning climate

change risks include promoting the development, testing, and installation of less polluting energy sources, and pressing businesses to use less energy and build more efficient products.

d. EPA's failure to respond to the Petition harms FoE and its members in several ways. First, FoE and its members have health and quality of life interests in reduced air pollution from CAFOs. FoE members and their families live in close proximity to CAFOs, and are negatively affected by intensified air pollution that exists around the operations.

e. Second, FoE members have professional, scientific, educational, spiritual, aesthetic, environmental, and other interests in a stable climate. FoE members use, enjoy, and live in areas that are, or will be, negatively affected by climate change. FoE members own property near coastal areas threatened by sea level rise due to climate change. Their use and enjoyment of, and in some cases their economic benefit from, these areas is diminished by the impacts of climate change. FoE members' professional interests are also harmed by climate change impacts. FoE members include people who grow and harvest food products, which are directly affected by a changing climate. Similarly, FoE members experience diminished opportunities for undertaking important biological research. FoE members also have interest in the continuing existence of species and their habitats, which are threatened by global warming.

f. FoE and its members are seriously concerned with and harmed by the deleterious effects of ammonia, hydrogen sulfide, greenhouse gases, and other air pollutants. They are both personally and professional injured by EPA's failure to respond to the Petition to regulate emissions from such CAFOs. EPA has failed in its duty to regulate these pollutants, which would lessen or eliminate the harm to FoE. CAFOs in the United States are emitters of enormous quantities of ammonia and hydrogen sulfide gases, and contribute significant amounts of greenhouse gas emissions. By failing to respond to the Petition (and to list CAFOs as a

category of sources under the Clean Air Act), EPA is failing to improve air quality in the United States and reduce the risks of global warming. This directly harms FoE's interests in stemming air pollution. A favorable decision here, requiring EPA to make a decision on the Petition to adopt emissions standards for CAFOs, will directly redress the harms to FoE and its members.

g. FoE and its members also suffer procedural and informational injuries related to EPA's unreasonable delay in responding to the Petition. FoE and its members are actively involved in a variety of regulatory processes to reduce the harmful impacts of CAFOs on human health and the environment, to reduce greenhouse gas emissions, and to prevent climate change. EPA's failure to respond to the Petition violates the procedural rights of FoE and its members, who seek to participate in efforts to reduce and remediate air pollution. If EPA begins a process to regulate CAFO air emissions, FoE and its members will participate.

23. Plaintiff SIERRA CLUB:

a. Sierra Club is a nonprofit organization headquartered in Oakland, California. Sierra Club has approximately 825,000 members dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth's ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. Sierra Club's concerns encompass regulation of CAFOs and their environmental impacts. Sierra Club's particular interest in the Petition stems from Sierra Club's goals to protect the health of the people of the earth and to maintain a healthy and diverse ecosystem through the use of sustainable methods of food production.

b. Sierra Club has a procedural interest in ensuring that EPA fully considers the information that Sierra Club submitted in the Petition, and in participating in any rulemaking

activity undertaken in response to the Petition. Sierra Club also has an interest in ensuring that EPA fully analyzes the environmental and human health risks of CAFO air emissions.

c. Sierra Club and its members have health, professional, scientific, educational, spiritual, aesthetic, environmental, and other interests in reduced emissions from CAFOs. Many Sierra Club members live in proximity to CAFOs, and air pollution from the nearby CAFOs causes negative impacts on their health and welfare. For example, emissions from nearby CAFOs causes members to feel burning in their airways and sinuses when they breathe, and suffer nausea and sore throats. Neighboring CAFOs' odor and fumes force members to avoid recreating and working outside, and to retreat inside their residences.

d. EPA has failed in its duty to issue regulations to control air pollution from CAFOs, which would lessen or eliminate the harms to Sierra Club and its members. By failing to respond to the Petition, and failing to list CAFOs as a category of sources under the Clean Air Act, EPA fails to improve air quality in the United States. EPA also fails to reduce the human health and environmental harms of ammonia, hydrogen sulfide, greenhouse gas, and other air emissions. A favorable decision here, requiring EPA to make a decision on the Petition to adopt emissions standards for CAFOs, will directly redress the harms to Sierra Club and its members.

e. Sierra Club and its members also suffer procedural and informational injuries related to EPA's unreasonable delay in undertaking rulemaking procedures responsive to the Petition. EPA's lengthy delay violates the procedural rights of Sierra Club and its members to participate in a rulemaking process through comments, information sharing, and advocacy. If EPA begins a regulatory process, Sierra Club and its members will participate.

24. EPA's failure to respond to the Petition has deprived all Plaintiffs of a statutorily required response, and of their statutory and constitutional rights to petition the government.

25. EPA's failure to act on the Petition negatively affects the ability of Plaintiffs to fulfill their organizational objectives. Plaintiffs individually and cooperatively have worked to address degradation to the environment and harms to human and animal health and welfare, all of which are caused by the under-regulation of air pollution from CAFOs. Plaintiffs have devoted significant staff time and resources to combat under-regulation of CAFOs, including the time and resources related to efforts to elicit an EPA response to the Petition. But for EPA's failure to address CAFO air pollution, Plaintiffs would not have to spend resources seeking agency action to respond to their Petition, and could direct those resources to other priorities.

26. As detailed with specificity above, Plaintiffs also bring this action on behalf of their members. These members experience physical harm from CAFO emissions, including respiratory issues like asthma; burning and irritation of the eyes, nose, and throat; digestive trouble; nausea; severe headaches; and other chronic health problems. These members must stay indoors to avoid the emissions, reducing their enjoyment and use of their property. The property values also decrease from nearby CAFO emissions. These environmental, health, aesthetic, economic, and recreational interests will continue to be adversely affected until EPA either grants the Petition, or denies it and allows Plaintiffs to obtain judicial review of the denial.

27. Plaintiffs and their many members fear that EPA's failure to regulate CAFO pollutants under the Clean Air Act denies them crucial information about harmful emissions from CAFOs, and government action, if any, to regulate those emissions. A response to the Petition would determine—with explanation and administrative record—whether CAFOs must abide by standards of performance under Sections 111(b)(1)(B) and 111(d) of the Clean Air Act.

28. A favorable determination would create reporting requirements, monitoring plans, enforcement mechanisms, and hearing obligations for CAFO emissions—all information that would become available to the public and benefit Plaintiffs and their members.[2]

29. Plaintiffs' members would benefit from knowing whether, when, and to what extent, CAFOs in their communities release hazardous substances. EPA does not know how many CAFOs exist, or where they all are located. Because exposure to CAFO emissions is directly associated with a range of deleterious health impacts, the increase in information could help Plaintiffs' members avoid exposures and health impacts. Plaintiffs are also harmed by the denial of information about CAFO emissions, because they rely on public data about releases from CAFOs, as well as any government action to regulate those releases, in their ongoing educational and advocacy work to reduce the harmful impacts of industrial agriculture. EPA's failure to collect and make publicly available information will continue to adversely affect Plaintiffs until EPA acts on the Petition.

30. The increase in CAFO recordkeeping and reporting, and other forms of public participation caused by regulation of CAFOs as stationary sources, would redress Plaintiffs' injuries by encouraging, and potentially requiring, CAFOs to reduce or eliminate air pollution.

[2] *E.g.*, 42 U.S.C. §§ 7413 (requiring public participation prior to certain settlement agreements or consent orders under the Clean Air Act), 7414 (authorizing EPA to require any person subject to any requirement of the Clean Air Act to establish and maintain records, make reports, utilize certain monitoring equipment, sample emissions, keep records on equipment, submit compliance certifications, and provide any other required information, that "shall be made available to the public"), 7420 (requiring an opportunity for a public hearing regarding a stationary source's noncompliance with Section 111 of the Clean Air Act), 7429 (mandating EPA to require monitoring and reporting of emissions from solid waste incineration units at stationary sources regulated under Section 111, and to "require that copies of the results of such monitoring be maintained on file at the facility concerned and that copies shall be made available for inspection and copying by interested members of the public during business hours"), 7475(a)(2) & 7479(1) (together, requiring public hearing prior to construction on a "major emitting facility").

31. The relief requested would redress these harms by requiring a response to the Petition. EPA's response would either fulfill EPA's statutory duty to regulate air pollution from CAFOs under the Clean Air Act, thus alleviating Plaintiffs' and their members' injuries from unregulated CAFO emissions, or provide Plaintiffs an avenue to challenge the Petition denial.

32. Defendant UNITED STATES ENVIRONMENTAL PROTECTION AGENCY is an "agency" for the purpose of the Administrative Procedure Act ("APA"). *See* 5 U.S.C. §§ 551(1), 701(b)(1). EPA implements the federal Clean Air Act and regulates air pollution to protect the nation's public health and welfare.

33. Defendant E. SCOTT PRUITT is the Administrator of EPA, and is sued in his official capacity. Mr. Pruitt is ultimately responsible for ensuring that EPA complies with and fully implements the Clean Air Act in accordance with Congress' intentions.

34. Mr. Pruitt and EPA are collectively referred to herein as "EPA."

LEGAL FRAMEWORK

I. The Clean Air Act

35. Congress designed the Clean Air Act "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," and to "encourage or otherwise promote reasonable Federal, State, and local governmental actions . . . for pollution prevention." 42 U.S.C. § 7401(b)(1), (c).

36. Section 111 of the Clean Air Act requires EPA to create "a list of categories of stationary sources" of air pollution in order to protect and enhance air quality and regulate that pollution. *Id.* § 7411(b). A category of sources meets the standard for listing under section 111 when it "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." *Id.*

37. The Clean Air Act defines "stationary source" as both "any building, structure, facility, or installation which emits or may emit any air pollutant," *id*. § 7411(a)(3), and "generally any source of an air pollutant," *id*. § 7602(z). It defines "air pollutant" as "any air pollution agent or combination of such agents, including any physical, chemical, biological . . . substance or matter which is emitted into or otherwise enters the ambient air." *Id*. § 7602(g). EPA designates "ambient air" as "that portion of the atmosphere, external to buildings, to which the general public has access." 40 C.F.R. § 50.1(e).

38. "Air pollutant" also includes "any precursors to the formation of any air pollutant." 42 U.S.C. § 7602(g). Ambient ammonia is a precursor that can react with nitrogen oxides and sulfur dioxide in the air to form a dangerous pollutant classified as fine particulate matter. Nitrogen oxide and volatile organic compounds are also precursors when they react with heat and sunlight to produce the pollutant ozone.

39. EPA must consider a source category's effects on "public health and welfare" when determining whether to list a source category of air pollutants. *Id*. § 7411(b)(1)(A). The Clean Air Act defines effects on welfare broadly, "includ[ing], but [] not limited to, effects on soils, water, crops, vegetation, man-made materials, wildlife and other animals, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants." *Id*. § 7602(h).

40. Upon listing a source category, EPA sets standards of performance for new sources in the category and prescribes regulations for existing sources. *Id*. § 7411(d), (b)(1)(B).

41. One of the Clean Air Act's primary pollutant reduction methods is the "criteria" pollutant program. Under the program, EPA establishes National Ambient Air Quality Standards

("NAAQS") that limit concentrations of criteria pollutants in the ambient air. *Id.* §§ 7408, 7409. EPA regulates six pollutants under this program: particulate matter 10 microns or less in diameter, carbon monoxide, nitrogen oxides, sulfur dioxides, ground-level ozone, and lead. Under the Clean Air Act's Title I, States are responsible for developing State Implementation Plans to achieve compliance with NAAQS. The Clean Air Act utilizes, in part, a stationary source permitting program called New Source Review to ensure that geographic areas in a state can attain pollution reduction goals.

42. The Clean Air Act has a citizen suit provision that permits any person to bring a civil action against the EPA to "compel . . . agency action unreasonably delayed." *Id.* § 7604(a).

II. The Administrative Procedure Act

43. Under the APA, agencies must "give an interested person the right to petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. § 553(e). This right to petition the government is consistent with the right to petition for redress of grievances found in the First Amendment to the United States Constitution.

44. The APA places a duty on agencies to respond to a petition for rulemaking in a timely manner. *Id.* § 555(b). If an agency denies a petition in whole or in part, it must provide "[p]rompt notice" to the petitioner. *Id.* § 555(e).

FACTUAL BACKGROUND

I. Air Pollution from CAFOs Endangers Public Health and Welfare

45. CAFOs confine thousands to millions of animals in controlled and restricted environments. The industrial facilities congregate animals, feed, manure and urine, dead animals, and production operations on a small land area. Animals consume food brought to them, as opposed to grazing or otherwise seeking feed in pastures, fields, or on rangeland.

46. CAFOs are the largest types of feeding operation, and have the biggest potential to pollute. EPA does not know how many CAFOs exist nationwide. EPA recently estimated that approximately 63,000 "small- and medium-sized" animal facilities may exist, and emit at least 100 pounds of ammonia or hydrogen sulfide gas per day. EPA Mot. Stay at 5, *Waterkeeper Alliance*, No. 09-1017 (D.C. Cir. Jul. 17, 2017), Doc. #1684518. EPA also estimated that CAFOs generate more than 500 million tons of manure nationally each year, three times the amount of raw waste that humans produce annually. *See* 68 Fed. Reg. 7176, 7,179 (Feb. 12, 2003).

47. The number of animals at a feeding operation is generally proportional to the air pollution it emits. CAFOs emit more pollutants than traditional, small-scale farms because they confine animals and waste on a much larger scale.

48. CAFO air pollution constitutes a public health problem. Specifically, CAFOs produce a variety of noxious air pollutants, including ammonia, hydrogen sulfide, methane, nitrous oxide, particulate matter, and volatile organic compounds. These pollutants are predominantly generated by the creation, collection, and decomposition of animal waste and gaseous byproducts, and can originate from a variety of areas within the CAFO, including the confinement facilities.

49. Air pollution from CAFOs significantly harms humans, animals, and the environment. CAFO air pollution has been linked to climate change, to the formation of haze, ozone, and fine particulate matter, and to contributions to land and water pollution. The release of these gases and particulates precipitate a variety of human health problems, including death. CAFO emissions can also reduce visibility, cause loss of biodiversity, harm crop and commercial forest production, and destroy wildlife habitat. The pollution can lead to adverse impacts on quality of life and enjoyment of property. It can decrease tourism revenue, reduce work capacity,

cause school absenteeism, exacerbate asthma and other respiratory conditions, and decrease the value of nearby properties.

50. A 2008 research review on CAFOs' public health impacts, performed by the Pew Commission on Industrial Farm Animal Production, found that living in close proximity to CAFOs has serious adverse health effects. The Commission reviewed studies showing respiratory impacts from CAFO air emissions, including increased incidence of asthma among both children and adults.[3]

51. Many CAFOs are geographically clustered, intensifying the harmful public health and environment effects in certain pockets of the country. For instance, according to U.S. Government Accountability Office estimates, five contiguous counties in North Carolina maintained more than 7.5 million hogs in 2002, mostly in CAFOs that produced as much as 15.5 million tons of manure.[4] Because EPA is not regulating air pollution from CAFOs, the people, communities, and animals in counties where CAFOs are clustered are disproportionately exposed to pollution.[5]

52. EPA has acknowledged the presence and significance of these disproportionate impacts. The agency's External Civil Rights Compliance Office has expressed a "deep concern" over the "adverse impacts from industrial swine operations" in North Carolina. North Carolina residents living near swine CAFOs reported to the Office severe health issues such as gagging,

[3] The Pew Commission on Industrial Farm Animal Production, *Putting Meat on the Table: Industrial Farm Animal Production in America* (2008).

[4] U.S. Gov't Accountability Office, GAO-08-944, *Concentrated Animal Feeding Operations: EPA Needs More Information and a Clearly Defined Strategy to Protect Air and Water Quality from Pollutants of Concern* (2008).

[5] In 2002, two counties in the San Joaquin Valley were estimated to maintain 535,433 cows, producing approximately 13.6 million tons of manure per year. That same year, two Arkansas counties had a combined broiler chicken population of 14,264,828, producing over 471,000 tons of manure.

nausea and vomiting, increases in cases and severity of asthma and other respiratory illnesses, nausea, headaches and other health conditions.[6]

53. Vulnerable populations like schoolchildren are especially susceptible to CAFO emissions. One study found that children in a school located one-half mile from a hog CAFO experienced significantly higher rates of physician-diagnosed asthma than children in schools farther away from animal operations.[7]

54. A review of nationwide data of infant mortality rates found that an increase of 100,000 animal units at the county level corresponds to 123 more infant deaths per 100,000 births, with about 80% of the deaths occurring during first 28 days of life. This review shows a statistically significant correlation between livestock and infant death. The researchers cited ammonia and hydrogen sulfide as the "main gases in question," as both have been linked to respiratory infections and distress in infants, perinatal disorders, and spontaneous abortion.[8]

55. Given the dangers of exposure to ammonia and hydrogen sulfide, several federal agencies have created worker exposure limits and regulations for the gases. EPA has established a series of short- and long-term exposure health guidelines for both ammonia and hydrogen sulfide called Acute Exposure Guideline Levels. The Agency for Toxic Substances and Disease Registry ("ATSDR") has established Minimal Risk Levels for acute and chronic exposures. The Occupational Safety and Health Administration ("OSHA") has established permissible limits for workplace exposure. The National Institute for Occupational Safety and Health created

[6] Jan. 12, 2017 Letter from Lilian Dorka, EPA, to Marianne Engelman Lado, Yale Law School (attached as Ex. 3).

[7] S.T. Sigurdarson & J.N. Kline, *School Proximity to Concentrated Animal Feeding Operations and Prevalence of Asthma in Students*, 129 Chest 1486 (2006).

[8] S. Sneeringer, *Does Animal Feeding Operation Pollution Hurt Public Health? A National Longitudinal Study of Health Externalities Identified by Geographic Shifts in Livestock Production*, 91 Amer. J. Agr. Econ. 124 (Feb. 2009).

recommended exposure limits for the workplace. None of these standards protects persons exposed to these air pollutants outside of the workplace.

56. Pew Commission researchers studying the health impacts of CAFO air pollution have recommended that EPA should develop a standardized approach for regulating air pollution from CAFOs, and should enforce all provisions of the Clean Air Act that pertain to CAFOs.

A. Ammonia

57. Ammonia is a caustic gas with a pungent odor that releases immediately as an animal evacuates its bowels, and again as animal waste decomposes. As the ATSDR has recognized, ammonia exposure can cause a range of adverse health effects, including nasal, throat, and eye irritation; burning of the respiratory tract, skin, and eyes; scarring; hemorrhaging of the gastrointestinal tract; and lethal airway blockage and respiratory insufficiency. The ATSDR characterizes ammonia as a toxin.[9]

58. According to a seminal study, at high concentrations, ammonia will bypass the upper airways and directly affect the lungs, causing inflammation of the lower lungs and pulmonary edema or swelling.[10]

59. The effects of acute exposures to high concentrations of ammonia can be long lasting, and even permanent. One study noted in the ATSDR profile monitored three men who were acutely exposed to ammonia gas. The researchers found that the men experienced symptoms including burning of the skin, eyes, and throat. The men also showed signs of stressed airways, like wheezing and coughing. Over two years later, researchers re-evaluated the men and found ongoing symptoms of restrictive lung disease. Another ATSDR-noted study described a

[9] ATSDR, *Toxicological Profile for Ammonia* (2004).

[10] Iowa State Univ. & Univ. of Iowa Study Group, *Iowa Concentrated Animal Feeding Operations Air Quality Study, Final Report* (2002) ["Iowa Study"].

man suffering from recurrent bronchial infections, cough, and shortness of breath while exercising, twelve years after exposure to ammonia gas.

60. Ammonia exposure has neurological effects, such as blurred vision, muscle weakness, decreased deep tendon reflexes, and loss of consciousness. Ammonia's solubility also allows it to quickly absorb into and damage upper airways cells.

61. Acute ammonia inhalation can cause fatal burns and infections. Ammonia is lethal at concentrations of 5,000-10,000 parts per million. These levels often cause chemical burns and swelling of the skin, eyes, and respiratory tract. The ammonia scorches people exposed to it from the inside out, causing internal damage like swollen and congested lungs and stripped bronchial wall linings, and burns across the upper body, face, and mouth.

62. The National Research Council issued guidelines on acute exposure to airborne chemicals, including ammonia. The guidelines note that ammonia exposure for as few as five minutes causes dryness of the nose and irritation to the eyes, nose, throat, and chest. Long-term exposure to lower concentrations of ammonia causes eye discomfort, headache, dizziness, upper respiratory and throat irritation, nasal dryness, and a "feeling of intoxication." As concentrations of ammonia increase, effects of exposure become more pronounced. Concentrations around 100 parts per million cause increased nasal airway resistance, intense odor, continued discomfort, intense to unbearable eye, nose, throat, and chest irritation, and tearing. Concentrations over 100 parts per million can cause respiratory scarring, tracheal and nasopharyngeal burns, bronchiolar/alveolar swelling, hyperventilation, reflex throat closure, and death.[11]

[11] National Research Council, *Acute Exposure Guideline Levels for Selected Airborne Chemicals: Vol. 6* (2007).

63. Poultry confinement operations regularly produce ammonia concentrations over 100 parts per million. Studies show that many types of CAFOs can produce harmful concentrations of ammonia even beyond the CAFO's property lines.[12]

B. Hydrogen Sulfide

64. Hydrogen sulfide is a flammable, poisonous chemical and asphyxiant that produces an odor similar to rotten eggs.[13] Hydrogen sulfide can cause difficulty breathing, loss of consciousness, shock, pulmonary edema, coma, brain damage, and death. Survivors of hydrogen sulfide poisoning commonly have neuropsychiatric defects, some of which can be permanent.

65. The ATSDR characterizes hydrogen sulfide as a toxin. The primary mode of hydrogen sulfide exposure is inhalation. After heightened exposure, individuals can experience permanent or long-term effects such as headaches, poor concentration, poor short-term memory, and impaired motor function. Exposure to low concentrations of hydrogen sulfide has been linked to numerous neurological effects, including incoordination, poor memory, hallucinations, personality changes, and anosmia (loss of sense of smell), as well as respiratory effects including nasal symptoms, sore throat, cough, and dyspnea. Impaired lung function has also been observed in asthmatics who are acutely exposed to as low as two parts per million hydrogen sulfide.[14]

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[12] *See, e.g.*, Iowa Study; Williams, et al., *Airborne Cow Allergen, Ammonia and Particulate Matter at Homes Vary with Distance to Industrial Scale Dairy Operations: An Exposure Assessment*, 10 Envtl. Health 72 (2011); Schinasi, et al., *Air Pollution, Lung Function, and Physical Symptoms in Communities Near Concentrated Swine Feeding Operations*, Epidemiology 208, 214 (2011).

[13] OSHA defines an asphyxiant as a hazardous chemical "that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those who are exposed, leading to unconsciousness and death." 29 C.F.R. § 1910.1200(c).

[14] ATSDR, *Toxicological Profile for Hydrogen Sulfide* (July 2006).

66. Exposure to heightened concentrations of hydrogen sulfide has been linked to severe respiratory distress or arrest and pulmonary edema. Such effects can occur after brief, acute exposure to hydrogen sulfide. Cardiovascular effects like cardiac arrhythmia and tachycardia also follow acute exposure to high concentrations of hydrogen sulfide.

67. Exposure to over 100 parts per million hydrogen sulfide is immediately hazardous to human life and health. It can cause rapid loss of consciousness, then death, after one or two breaths. This is called the "slaughterhouse sledgehammer" effect. According to the Iowa Study, agitated manure lagoons can create levels as high as 1,000 parts per million hydrogen sulfide.

68. The ATSDR recognizes hydrogen sulfide exposure as a problem for communities near swine CAFOs. Residents living near such facilities experience increased nasal symptoms, cough, and an increase in emergency room visits due to respiratory symptoms, including asthma.

69. OSHA estimates that 125 hydrogen sulfide-related worker deaths occurred at CAFOs between 1984 and 2009.

70. In one fatal case described by the ATSDR, a man developed nausea, vomiting, dizziness, and dyspnea after being exposed to hydrogen sulfide in a bathroom connected to a manure pit, and died a few hours later; hemorrhagic bronchitis and asphyxiation were the cause of death. In another case, after exposure to hydrogen sulfide in a liquid manure tank, a 16-year-old boy developed decerebrate responses to painful stimuli and partial seizures and then died.

71. Even at low concentrations, hydrogen sulfide causes strong odors in areas surrounding CAFOs. The National Research Council has found hydrogen sulfide emissions at CAFOs to have a "significant" effect on the quality of human life.[15]

C. Particulate Matter

[15] National Research Council, *Air Emissions from Animal Feeding Operations: Current Knowledge, Future Needs* (2003) ["NRC Air Emissions from AFOs"].

72. Particulate matter consists of small solid and liquid particles suspended in the ambient air. Particulate matter is categorized by its aerodynamic diameter. "Fine particulate matter" includes particles with an aerodynamic diameter less than or equal to 2.5 micrometers. Such small particles can travel deep into the lungs and cause several health problems.

73. EPA has recognized the health and environmental effects of particulate pollution, and fine particulate matter in particular, for decades. Fine particulate matter is a criteria pollutant under the Clean Air Act. EPA maintains NAAQS for fine particulate matter to improve air quality and protect public health and welfare from respiratory problems, decreased lung function, aggravated asthma symptoms, chronic bronchitis, irregular heartbeat, heart attacks, and premature death. *See, e.g.*, 72 Fed. Reg. 20,586 (Apr. 25, 2007).

74. EPA works to attain the particulate matter NAAQS by setting national emissions standards for stationary sources of these criteria pollutants, among other activities.

75. At CAFOs, particulate matter can be directly emitted—often from dry manure, bedding and feed materials, biological matter, and dusts—or it can form by chemical reactions of precursor gases in the atmosphere. Ammonia and hydrogen sulfide, as well as nitrous oxide and volatile organic compounds, can be particulate matter precursors. Ammonia gas reacts readily with acidic compounds in the air to form small particles known as ammonium nitrate and ammonium sulfate aerosols.[16] The aerosols have devastating effects on cardiovascular systems.

76. Up to 40% of fine particulate matter from CAFOs can be absorbed in human and animal systems. Studies show that populations with a greater incidence of long-term exposure to particulate matter have higher rates of chronic respiratory problems, declining lung function, and mortality from major cardiovascular disease. Over 1,000 deaths per year are estimated to occur

[16] National Research Council, Air Emissions from AFOs.

from heightened levels of fine particulate matter in the San Joaquin Valley air basin in California, where dairies are one of the largest sources of ammonia and volatile organic compounds.[17]

D. Greenhouse Gases: Methane and Nitrous Oxide

77. CAFOs release the powerful greenhouse gases methane and nitrous oxide. The Intergovernmental Panel on Climate Change ("IPCC")—a scientific body established by the United Nations Environment Programme and the World Meteorological Organization to review and assess climate change—states that warming of the climate system is unequivocal. Most of the observed increase in global temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic greenhouse gas concentrations.[18]

78. Anthropogenic activities have caused marked increase of six well-mixed greenhouse gases, "which together, constitute the root cause of human-induced climate change and resulting impacts on public health and welfare."[19] Methane and nitrous oxide are 20 and 300 times more powerful than carbon dioxide at trapping heat in the atmosphere over a 100-year period, respectively. Their warming potential is likely greater in the short term.

79. Methane is produced by anaerobic decomposition of organic matter in biological systems and by the normal digestive process in ruminant animals. Nitrous oxide typically comes from a microbial process called nitrification and denitrification. The process often occurs in soils and fertilizer via decomposition of livestock manure and urine.

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[17] J.V. Hall et al., The Benefits of Meeting Federal CAA Standards in the South Coast & San Joaquin Valley Air Basins (Nov. 2008).

[18] IPCC, *Climate Change 2007: The Physical Science Basis* (2007) ["IPCC Physical Science Report"]; *see also* U.S. Global Change Research Program Climate Science Special Report Final Clearance (Jun. 28, 2017).

[19] 74 Fed. Reg. 66,517, 66,516 (Dec. 15, 2009). The six well-mixed greenhouse gases are carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

80. Methane and nitrous oxide emissions contribute to increasing global temperatures, intensified adverse weather patterns like changes in storms, wildfires, and precipitation, changes in the type, distribution, and coverage of natural vegetation, reduced fresh water availability, ocean acidification, loss of arctic sea ice and reduction in glacial size, increase in sea level and flooding, and the impairment of natural habitats and biodiversity.

81. Up to 30% of plant and animal species will have increased risk of extinction as global mean temperatures exceed a warming of 2-3° C above preindustrial levels.[20] Some species already have begun to experience steep population declines and mass die-offs.[21]

82. For humans, the expected effects of unrestricted climate change are dire. Human health consequences associated with climate change include: increased diseases; food and water insecurity; heat-related disorders like heat stress, dehydration, and reduced work capacity; respiratory disorders; mental health disorders like the post-traumatic stress disorders and depression associated with natural disasters; and death. Projected changes in weather patterns and coastal wetlands loss will cause increased damage and expense from floods and storms.

83. Scientists project that climate change effects on infrastructure will reduce the availability of fresh water. In Africa, by 2020, between 75 and 250 million people are expected to suffer increased water stress.[22] Water stress and other changes associated with climate change, including changes in climatic pattern and ocean acidification, are projected to increase rates of malnutrition, as well as diarrheal, cardio-respiratory, and infectious diseases.

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[20] IPCC, *Fourth Assessment Report, Climate Change 2007: Synthesis Report, Summary for Policymakers* (2007).

[21] *E.g.*, G. Ceballos et al., *Accelerated Modern Human-Induced Species Losses: Entering the Sixth Mass Extinction*, 1 Sci. Advances e1400253 (2015).

[22] IPCC 2007 Physical Science Report.

84. EPA classifies nitrogen oxides as criteria pollutants under the Clean Air Act. According to EPA, nitrogen dioxide is highly reactive and can irritate the human respiratory airways, aggravate respiratory diseases, contribute to asthma development, and potentially increase susceptibility to respiratory infections. EPA has set standards for nitrogen dioxide as an indicator of air pollution. *See* 40 C.F.R. § 50.11. Methane and nitrogen oxides are both precursors for the formation of ground level ozone, a criteria pollutant.

E. Volatile Organic Compounds

85. EPA defines volatile organic compounds as "any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions." *Id*. § 51.100(s). CAFOs emit volatile organic compounds through feed, fresh waste, enteric processes (*e.g.*, cow digestion processes), and manure decomposition. CAFOs emit as many as 165 volatile organic compounds; of these, 24 are odorous chemicals and 21 are listed as Hazardous Air Pollutants under the Clean Air Act. 42 U.S.C. § 7412(b). CAFO-emitted Hazardous Air Pollutants include benzene, formaldehyde, tetrachloroethylene, methanol, toluene, and xylene. Volatile organic compounds are also precursors to ground-level ozone.

86. Some volatile organic compounds are toxic to the nervous system in both humans and animals. Studies examining neurobehavioral issues among humans living near CAFOs have found increased rates of depression, anger, fatigue, and confusion.[23] According to the Iowa Study, volatile organic compounds cause serious physiological and psychological problems in animals, including delayed weaning, higher stress levels, and reduced growth and appetite. Other

[23] *See, e.g.*, S. Schiffman et al., *Quantification of Odors and Odorants from Swine Operations in North Carolina*, 1089 Agric. & Forest Meteorology 213 (2001).

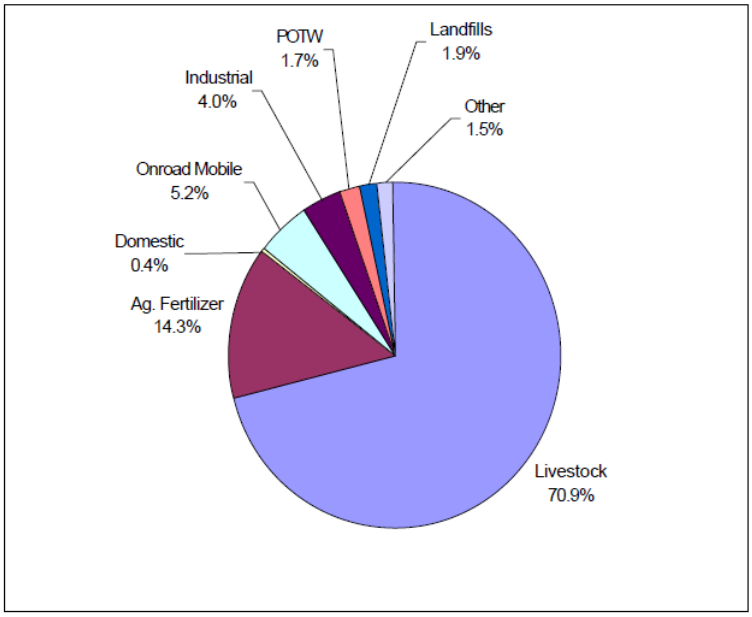
impacts include deteriorated muscles, organs, and respiratory functioning, and increased morbidity and mortality.

II. CAFOs Cause, and Contribute Significantly to, Air Pollution

87. CAFOs are stationary sources that release a substantial volume of air pollutants into the environment. These operations cause and contribute significantly to air pollution.

88. EPA has estimated that animal feeding operations are responsible for almost three-fourths of the ammonia emissions in the United States, or approximately 2.5 million tons of ammonia per year. *See, e.g.*, Figure I-1 below, taken from page 2 of EPA's April 2004 *Estimating Ammonia Emissions from Anthropogenic Nonagricultural Sources*.

Figure I-1. Source Sector Ammonia Contributions to the NEI



89. For instance, a single dairy CAFO in Oregon has estimated its own emissions at 2,500 tons of ammonia in one year—approximately 35 tons more ammonia than the nation's largest manufacturing source, the nitrogen and fertilizer company CF Industries.

90. In 2002, EPA estimated that large dairy and swine animal feeding operations emitted 100,000 pounds of hydrogen sulfide annually.[24] The presence of CAFOs significantly affects the amount of hydrogen sulfide in the nearby region's air. For example, one study found that CAFOs in Minnesota caused exceedances of the state standard for hydrogen sulfide concentrations up to five miles away.[25]

91. EPA has reported that the agricultural sector is responsible for nearly 9% of greenhouse gas emissions in the United States. Agriculture is a significant source of emissions of two potent greenhouse gases, nitrous oxide and methane. Of agriculture's greenhouse gas contribution, approximately 30% percent comes from the livestock sector.[26]

92. Enteric fermentation constitutes 27% of total methane emissions and is the largest anthropogenic source of methane in the United States. Methane emissions from manure management further increase the methane load attributable to animal feeding operations. In 2006, industrial animal agriculture was responsible for emitting almost nine million tons of methane, or about 185 million tons of carbon dioxide equivalent, in the United States alone.[27]

93. CAFOs produce enormous quantities of manure, which are either stored on-site or disposed onto a small area of land, resulting in methane and ammonia emissions that endanger

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[24] EPA, *Non-Water Quality Impact Estimates for Animal Feeding Operations* (Dec. 2002).

[25] R. Marks, Natural Res. Def. Council & Clean Water Network, *Cesspools of Shame, How Factory Farm Lagoons and Sprayfields Threaten Environmental and Public Health* (2001) (citing Minn. Pollution Control Agency, *Feedlot Air Quality Summary: Data Collection, Enforcement and Program Development* (1999)).

[26] M. Nowlin & E. Spiegel, *Much ado about methane: intensive animal agriculture and greenhouse gas emissions, in* Res. Handbook on Climate Change & Agric. Law (Angelo & Du Plesis, eds. 2017).

[27] EPA, Report No. EPA-430-R-08-005, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006* (2008). That increase has rapidly grown in the years since the Petition was filed, to a 65% increase between 1990 and 2014. EPA, Report No. EPA-430-R-16-002, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2014*, at 5-9 (2016).

humans and the environment. Increases in methane emissions correlate to the consolidation of the livestock industry, with EPA reporting a 34% increase in methane emissions from manure management between the years 1990 and 2006.[28]

94. Agricultural soil management activities, which include application of manure to the soil, provide the largest source of nitrous oxide emissions in the United States, producing approximately 72% of nitrous oxide emissions in 2006.

95. CAFO persistently cause NAAQS exceedances because of their releases of volatile organic compounds and particulate matter. For example, dairies chronically exceed ozone and fine particulate matter NAAQS in the San Joaquin Valley. By any estimate, "dairies are among the largest source of VOCs in the Valley, and these smog-forming VOC emissions have a significant adverse impact on efforts to achieve the health-based air quality standards."[29]

III. The Petition

96. On September 21, 2009, Plaintiffs and others petitioned EPA to list CAFOs as a category of sources under section 111 (b)(1)(A) of the Clean Air Act, and, thereafter, to promulgate standards of performance under section 111(b)(1)(B) and prescribe regulations for state performance standards for existing CAFOs under section 111(d). *See* Ex. 1.

97. The Petition states that mitigating the animal agriculture sector's contribution to climate change and other air pollution is vital for the health and welfare of the planet, the environment, and its inhabitants. Further, because compelling scientific evidence supports the

[28] *Id.*; *see also* K. Riahi et al., *RCP 8.5—A scenario of comparatively high greenhouse gas emissions*, 109 Climatic Change 33 (2011).

[29] San Joaquin Valley Air Pollution Control District, *Air Pollution Control Officer's Determination of VOC Emission Factors for Dairies*, at 6 (Aug. 1, 2005).

immediate listing of CAFOs and the issuance of new source performance standards for the industry, it would be unreasonable for EPA to decide against listing CAFOs as a source category.

98. In 2010, HSUS submitted a copy of the Petition to EPA that added the Sierra Club as a Petitioner. No other changes were made to the revised Petition.

99. On October 22, 2010, EPA acknowledged receipt of the revised Petition.

IV. Post-Petition Events

100. On August 5, 2013, the Environmental Integrity Project submitted an indexed compilation of 63 scientific studies, reports, and other documents to EPA in support of the Petition. On May 28, 2014, EIP submitted an additional study on the health impacts of agricultural ammonia emissions to EPA.

101. On August 20, 2013, HSUS convened a teleconference with EPA staff to determine the Petition's status and to ask EPA to open a public docket for the Petition. A docket is a collection of documents made available by an agency for public viewing, and is often—but not always—associated with an opportunity for public comment.

102. EPA declined to open a public docket for the Petition.

103. On November 1, 2013, EPA sent HSUS a letter summarizing the August 20, 2013 teleconference meeting. The letter stated that EPA did not intend to substantively address the Petition until after "completion of the National Air Emissions Monitoring Study[,] . . . a study that involves the collection and analysis of air emissions data from numerous CAFOs throughout the country. . . . [O]pening a docket and assigning a Start Action Number . . . would be taken if our analysis of the data leads us to begin a formal rulemaking process."[30]

[30] Nov. 1, 2013 Letter from Robin Dunkins, EPA, to Hannah Connor, HSUS (attached as Ex. 4).

104. Plaintiffs filed a lawsuit claiming EPA had unreasonably delayed responding to the Petition on January 28, 2015. Instead of responding to the Petition, EPA moved to dismiss the lawsuit on jurisdictional grounds. The Court agreed, holding that Plaintiffs had failed to serve EPA with a notice of intent to sue letter at least 180 days before filing suit. *See Humane Soc'y*, 209 F. Supp. 3d at 287-88.

105. On October 7, 2016, Plaintiffs notified EPA of their intent to file suit. *See* Ex. 2.

V. EPA's National Air Emissions Monitoring Study

106. EPA has not used its authority under the Clean Air Act or other air pollution statutes to quantify, control, or reduce the dangerous air pollutants from CAFOs. Instead, EPA initiated, but is no longer advancing, an open-ended process in which it claims to be developing methods to estimate air emissions from CAFOs.

107. In 2005, over 2,500 agricultural industry players, controlling over 14,000 animal feeding operations nationwide, entered into a non-litigated administrative consent agreement with EPA ("Air Compliance Agreement"). Under the Air Compliance Agreement, the industry participants paid a nominal fine to EPA to fund the agency gathering of information, performance of the two-year National Air Emissions Monitoring Study ("Air Emissions Study"), and development of emissions estimating methodologies.

108. According to the EPA's Environmental Appeals Board, the Air Compliance Agreement does not include "any enforceable compliance aspects."

109. In exchange for nominal fines, EPA granted industry participants a safe harbor from EPA enforcement for past violations of the permitting provisions of the Clean Air Act and other emissions reporting statutes. The Air Compliance Agreement does not amend, change, or otherwise interpret EPA's authority to regulate CAFOs under the Clean Air Act.

110. Under the Air Compliance Agreement, EPA was required to evaluate the Air Emissions Study data and publish unit-specific emission methodologies within 18 months of the conclusion of data collection. Once EPA published the final emission methodologies, participating CAFOs would be required to use them to calculate facility emissions, assess whether they are in compliance with the law, and either bring the facilities into compliance with federal environmental statutes or certify that no such requirements apply to the emissions.

111. The Air Emissions Study was a two-year study monitoring emissions of ammonia, hydrogen sulfide, volatile organic compounds, and particulate matter pollution at 24 CAFO sites. The Air Emissions Study only monitored emissions from confinement areas and waste storage systems, and did not address land application of waste.

112. The Air Emissions Study monitoring period ended in 2009.[31]

113. The Air Emissions Study is not relevant to many types of CAFOs addressed in the Petition. The Air Emissions Study did not monitor any operations within the turkey and beef sectors. On information and belief, the beef industry declined to participate in Air Emissions Study because it believed beef cattle operations were too different from other livestock sectors.

114. In March 2012, EPA issued draft emissions estimating methodologies, addressing (1) broiler chicken operations, and (2) lagoons and basins at hog and dairy operations. In 2013, EPA's Science Advisory Board issued a report critical of the Air Emissions Study's methods, the data generated, and the two draft methodologies. EPA has not issued additional or revised drafts.

115. A decade after the Air Emissions Study began, the emissions estimation tools meant to arise from the Air Emissions Study are not complete. EPA records show it still needs

[31] *See* 81 Fed. Reg. 58,010, 58,032-33 (Aug. 24, 2016) (methodologies to be developed "using data collected during the period 2007-2009 from representative operations pursuant to [Air Emissions Study]").

upwards of 20 to 30 additional years to issue emission methodologies. This could put the total timeframe between executing the Air Compliance Agreement and implementing usable models into the 2040s. In the meantime, humans living near and working in CAFOs, including Plaintiffs' members, as well as wildlife and other animals, continue to suffer significant adverse effects from CAFO emissions.

116. EPA internally acknowledges the ongoing and indefinite delay to completing and issuing the emission methodologies. Agency communications show that any work related to the Air Emissions Study and emissions methodologies are "on hold," without any project updates.

117. The Air Emissions Study project lead, Larry Elmore, retired in 2015.

118. On information and belief, because of the Trump administration's hiring freeze and budget, positions that EPA needs to finalize the estimating methodologies remain unfilled.

119. EPA does not have a schedule for completing the emissions methodologies.

120. EPA does not have any set, specific deadlines by which it will reach benchmarks in its progress towards completing the emissions estimating methodologies.

121. EPA's long-delayed actions to establish estimating methodologies based on a non-comprehensive collection of CAFOs are unnecessary for EPA's determination on the Petition. The process for developing models for individual CAFOs to estimate and report emissions is fundamentally distinct from assessing whether CAFOs should be designated as a source category that endangers public health and welfare. EPA has the information necessary to respond to the Petition and designate CAFOs as a Clean Air Act source category, regardless of whatever else EPA stated it would or should do to address CAFO emissions. EPA cannot rely on the Air Emissions Study or the Air Compliance Agreement to justify its delay in responding to the Petition or to take the place of action to properly designate CAFOs under the Clean Air Act.

VI. EPA's Continuing Failure to Respond to Plaintiffs' Petition

122. Nearly eight years have passed since Plaintiffs filed the Petition requesting EPA to list CAFOs as a category of Clean Air Act sources and to promulgate associated regulations.

123. In that time, CAFOs have continued to emit air pollutants, including ammonia, hydrogen sulfide, methane, nitrous oxide, and volatile organic compounds into the environment, endangering human health and welfare and contributing significantly to air pollution.

124. Indeed, CAFO emissions have very likely grown. For example, according to the U.S. Department of Agriculture, in March 2017 there were 9.4 million commercial dairy cows in the country, a 20-year high.[32]

125. Any EPA desire to wait for more information before regulating CAFOs under the Clean Air Act is not a proper justification for failing to respond to the Petition.

126. EPA has not substantively responded to the Petition.

CLAIM FOR RELIEF

127. Plaintiffs incorporate by reference allegations in paragraphs 1 through 126, *supra*.

128. EPA's failure to respond to Plaintiffs' Petition to regulate CAFOs as a source of air pollution constitutes unreasonable delay under the Clean Air Act and the APA. *See* 42 U.S.C. § 7604(a); *see also* 5 U.S.C. § 555(b) ("[W]ithin a reasonable time, each agency shall proceed to conclude a matter presented to it").

REQUEST FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that the Court:

(1) Declare that EPA's failure to issue a timely final decision on Plaintiffs' Petition violates the Clean Air Act and the APA;

[32] *See* H. Haddon, *Got Milk? Too much of it, say U.S. dairy farmers*, Wall St. J., May 21, 2017.

(2) Order EPA to make a final decision on the Petition within 90 days;

(3) Retain jurisdiction over this matter until such time as EPA has fulfilled its legal obligations, as set forth more fully in this complaint;

(4) Award Plaintiffs attorneys' fees and all other reasonable expenses incurred in pursuit of this action; and

(5) Grant Plaintiffs such additional relief as the Court may deem just and proper.

Respectfully submitted this 23rd day of August, 2017.

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