

**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF COLUMBIA**

CENTER FOR BIOLOGICAL DIVERSITY  
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San Francisco, CA 94104

CENTER FOR FOOD SAFETY  
660 Pennsylvania Ave, S.E., Suite 302  
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FRIENDS OF THE EARTH  
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INTERNATIONAL CENTER FOR  
TECHNOLOGY ASSESSMENT  
660 Pennsylvania Avenue, S.E., Suite 302  
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OCEANA  
1350 Connecticut Avenue, N.W., 5th Floor  
Washington, DC 20036

Plaintiffs,

v.

UNITED STATES ENVIRONMENTAL  
PROTECTION AGENCY and LISA JACKSON,  
Administrator,  
United States Environmental Protection Agency  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

Defendants.

Civ. No. \_\_\_\_\_

**COMPLAINT FOR  
DECLARATORY AND  
INJUNCTIVE RELIEF**

**INTRODUCTION**

1. Plaintiffs Center for Biological Diversity, Center for Food Safety, Friends of the Earth, International Center for Technology Assessment, and Oceana (collectively, “Plaintiffs”), seek to compel Defendants, the United States Environmental Protection Agency and Lisa Jackson, Administrator of the U.S. Environmental Protection Agency (collectively, “EPA”), to

carry out their duty to respond to three petitions for rulemaking under the Clean Air Act (“CAA” or “the Act”). These petitions request that, pursuant to sections 213 and 231 of the Clean Air Act, 42 U.S.C. §§ 7547 and 7571, EPA: (1) make a finding that global warming pollutants emitted by marine vessels and engines, aircraft engines, and other nonroad vehicles and engines,<sup>1</sup> cause or significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare; and (2) promulgate regulations limiting such emissions from each of these sources.

2. As described below, Plaintiffs submitted the marine vessels petition on October 3, 2007, the aircraft petition on December 5, 2007, and the nonroad petition on January 29, 2008. In keeping with the urgency of addressing global warming, the petitions requested that EPA provide a substantive response to each petition within 180 calendar days of their filing. Those 180 days expired on March 31, 2008 for the marine vessels petition, on June 2, 2008 for the aircraft petition, and on July 29, 2008 for the nonroad petition. Nearly two and a half years later,<sup>2</sup> EPA has failed to respond to the petitions and these significant sources of global warming pollution remain unregulated.

## **JURISDICTION**

3. This action is brought under the Clean Air Act, 42 U.S.C. §§ 7401 *et seq.*

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<sup>1</sup> Section 213 of the Clean Air Act governs all nonroad engines and vehicles, as defined in CAA § 216(10)-(11), 42 U.S.C. § 7550(10)-(11). Marine engines are included in the definition of nonroad engines and vehicles. However, because marine engines are regulated separately from other nonroad sources, constitute a significant source of emissions, and are the subject of a separate petition, they are addressed separately throughout this complaint. For the purposes of this complaint, “nonroad” refers to all other engines, equipment and vehicles regulated under Section 213.

<sup>2</sup> Despite the urgency of addressing global warming, Plaintiffs refrained from filing suit earlier to give the new administration a chance to act on the petitions. However, the new administration has been in office since January 20, 2009—over 130 days—and has still not acted.

4. This Court has jurisdiction over this action under 28 U.S.C. § 1331 (action arising under the laws of the United States) and section 304(a) of the Clean Air Act, 42 U.S.C. § 7604(a) (citizen suit provision).

5. Section 304 of the Act requires that written notice of intent to bring suit for unreasonable delay under the Act must be provided to the Administrator of EPA 180 days prior to commencement of such an action. 42 U.S.C. § 7604(a). On July 31, 2008, Plaintiffs notified the Administrator by certified mail of Plaintiffs' intent to file suit for unreasonable delay in responding to the petitions. The 180-day notice period expired on January 31, 2009.

### VENUE

6. Venue lies in this judicial district pursuant to section 304(a) of the Clean Air Act, which 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). Section 7607(b) provides that "[a] petition for review of...any standard under section 7571 of this title, ...or any other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia." *Id.* § 7607(b)(1). Because aircraft standards are set pursuant to section 7571, and emissions standards for marine vessels and engines and other nonroad vehicles and engines would be nationally applicable, a petition for review of such regulations must be filed in the United States Court of Appeals for the District of Columbia. *Id.* Thus an action for unreasonable delay in promulgating such regulations must be brought in the United States District Court for the District of Columbia. *Id.* § 7604(a).

7. Venue is also proper in this judicial district pursuant to 28 U.S.C. § 1391(e) because Defendant EPA has its principal office here; a substantial part of the events or omissions

giving rise to the claim occurred here; and Plaintiffs Center for Food Safety, Friends of the Earth, ICTA, and Oceana have their headquarters here.

## **PARTIES**

### **8. Plaintiff CENTER FOR BIOLOGICAL DIVERSITY:**

a. The Center for Biological Diversity (“the Center”) is a non-profit organization with offices in San Francisco, Los Angeles, and Joshua Tree, California; Phoenix and Tucson, Arizona; Silver City and Pinos Altos, New Mexico; Portland, Oregon; Chicago, Illinois; Las Vegas, Nevada; Duluth, Minnesota; Richmond, Vermont; and Washington, D.C. The Center is a national membership organization with approximately 43,000 members. The Center’s mission is to ensure the preservation, protection, and restoration of biodiversity, native species, ecosystems, public lands and waters, and public health. Based on the understanding that the health and vigor of human societies and the integrity and wildness of the natural environment are closely linked, the Center is working to secure a future for animals and plants hovering on the brink of extinction, for the ecosystems they need to survive, and for a healthy, livable future for all of us.

b. The Center has developed several different practice areas and programs. One such area is climate change science, law, and policy, which is coordinated by the Center’s Climate Law Institute. The overarching goal of the Climate Law Institute is to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and public health. Specific objectives include securing protection for species threatened by the impacts of global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues. The Center has advocated in numerous local, state, and federal fora for the availability of improved climate-related information, for better informed

decision-making on matters related to climate, for the reduction of global warming pollutants, and for other aspects of the solutions to the climate crisis. The Center has petitioned to have some of the first species to be threatened by global warming listed under the U.S. Endangered Species Act, including the polar bear, staghorn and elkhorn corals in the Caribbean, the Pacific walrus, spotted, bearded, ringed, and ribbon seals, the American pika, and the Kittlitz's murrelet, a small seabird that feeds at the base of tidewater glaciers in Alaska. These and many other species will not survive unless the United States substantially reduces its greenhouse gas emissions. The Center has previously requested that EPA regulate greenhouse gases under Section 202 of the Clean Air Act, and was a party in the successful case *Massachusetts v. EPA*, 549 U.S. 497 (U.S. 2007) overturning EPA's decision to not regulate greenhouse gases from automobiles.

c. The Center and its members are harmed in many ways by Defendants' failure to respond to the petitions to regulate greenhouse gas emissions from ships, aircraft, and nonroad engines. First, the Center and its members are harmed by global warming and climate disruption caused by global warming pollution. Many Center members have professional, scientific, educational, moral, spiritual, aesthetic, and other interests in the continuing existence of species and their habitats that are threatened by global warming. These members include, among others, teachers, wildlife photographers, biologists, and other scientists whose professional activities will be directly affected by the extirpation of species and the degradation of their environment by global warming. For example, some Center members have traveled extensively to observe polar bears and other species threatened by global warming and to study their habitat, and they have present plans to continue such pursuits. Continued unabated greenhouse gas and black carbon emissions will result in extinction of the polar bear and many other species, ending the Center's members' ability to enjoy, learn from and benefit from them.

Even short of full extinction, Center members suffer harm when they are unable to view polar bears and other species, when they encounter starving and otherwise unhealthy bears, and when they experience the devastating impacts of a world rapidly changing due to global warming.

d. The Center and its members are harmed in many additional ways by global warming and climate disruption. For example, Center members are harmed because global warming intensifies other forms of air pollution, such as smog, which has severe impacts on human health, species, and ecosystems. The Center's members are harmed because global warming and increased drought increase the frequency of wildfires, because sea level rise threatens coastal ecosystems, species, and property, and in many other ways.

e. In some instances the harm from global warming pollution is also strongly local and regional. For example, emissions of black carbon can have severe local and regional impacts, especially in snow and ice covered regions such as the Arctic and mountain ranges in the western United States. This is because black carbon particles not only absorb heat in the atmosphere, but also deposit on snow and ice and decrease the reflectivity of those surfaces, greatly speeding the melting process and contributing to an important climate feedback which accelerates further warming. Center members are harmed by the contribution of black carbon to global and local warming, as well as the increased loss of snowpack and diminishing ability to enjoy outdoor winter recreation and other activities. Methane and other ozone precursors also have a strong regional impact on the Arctic.

f. In sum, Center members are vitally concerned with and harmed by the deleterious effects of greenhouse gas and black carbon pollution. Many of the Center's members encourage the organization to take all possible actions to protect the environment from the impacts of global warming and suffer great personal distress as the result of the ongoing harm caused by global warming and climate disruption. They are both personally and professionally

injured by Defendants' failure to respond to the petitions to regulate greenhouse emissions from ships, aircraft, and nonroad engines.

g. Defendants' failure to respond to the petitions directly harms the Center and their members, and a favorable decision in this case will redress that injury. Defendants have failed in their duty to issue regulations to control these pollutants, and thereby lessen or eliminate the harm to Plaintiffs. On a cumulative basis the United States is by far the world's largest emitter of greenhouse pollution, and the transportation sector accounts for roughly one third of all U.S. emissions. Ships, aircraft, and nonroad engines in turn represent a significant part of transportation sector emissions, and control of these emissions is therefore an essential part of solving the climate crisis. Moreover, regulations to control emissions from these mobile sources will result not only in a significant decrease in greenhouse gas emissions, but also encourage technological innovation which will spur emissions reductions in other sectors as well. Regulation of greenhouse gas emissions from these sources will also very likely lead to reductions in other air pollutants which harm Center members through their impacts on public health, species, and ecosystems. By failing to respond to Plaintiffs' petitions, Defendants are therefore blocking an essential part of the solution to global warming and climate disruption and directly harming the Center and its members' interests. Defendants' response to Plaintiffs' petitions will constitute an essential part of the solution to global warming and climate disruption and directly redress the harms to the Center and its members discussed herein.

h. The Center and its members also suffer procedural and informational injuries related to Defendants' failure to initiate appropriate rulemaking procedures in response to the petitions. This failure violates the procedural rights of the Center and its members to participate beneficially in the rulemaking process. If and when Defendants respond to the petitions and begin the Clean Air Act regulatory process for greenhouse gas and black carbon

emissions from ships, aircraft, and nonroad engines, then the Center and its members will participate in this process, will both contribute to and gain information from it, and will be able to carry out their mission to advocate in favor of controlling greenhouse gas emissions. If carried out properly, the resulting regulatory process will result in a substantial decrease in greenhouse and other pollution from ships, aircraft, and nonroad engines.

9. Plaintiff CENTER FOR FOOD SAFETY:

a. The Center for Food Safety (“CFS”) is a non-profit organization with offices in Washington, D.C. and San Francisco, California. CFS is a national membership organization with over 100,000 members across the U.S. CFS works to protect human health and the environment by curbing the proliferation of harmful food production technologies and by promoting organic and other forms of sustainable agriculture.

b. In furtherance of this mission, CFS has a global warming project, the “Cool Foods” Campaign, which works to address the global warming impacts of industrial agriculture. The campaign seeks solutions to the problem of global warming, and focuses on agricultural practices that can reduce and reverse this trend.

c. CFS and its members are harmed in many ways by global warming, including *inter alia* the direct and indirect impacts to ecosystems, including those environments critical to sustainable food systems; direct and indirect harm to sustainable agricultural systems from increasingly severe and varied weather caused by global warming; increased or unstable economic shifts in agricultural commodities due to global warming; global warming threats to the means of production of sustainable agricultural systems, like organic agriculture; and harms from “geo-engineering” quick fixes to global warming, such as overdependence on ethanol biofuels, synthetic biology experiments and crops genetically engineered for purported drought-tolerance or salt-tolerance. Unregulated emissions from nonroad engines will cumulatively



worsen global warming and consequently will exacerbate the impacts of global warming on CFS and its members. Defendants' failure to respond to the petitions thus directly harms the CFS and their members, and a favorable decision in this case will redress that injury.

d. CFS also suffers procedural and informational injuries related to Defendants' failure to initiate appropriate rulemaking procedures in response to the petitions. This failure violates the procedural rights of CFS to participate beneficially in the rulemaking process. If and when Defendants respond to the petitions and begin the Clean Air Act regulatory process for greenhouse gas and black carbon emissions from nonroad engines, then CFS will participate in this process, will both contribute to and gain information from it, and will be able to carry out their mission of protecting the environment and public from the climate impacts of harmful food production technologies and promoting organic and other forms of sustainable agriculture.

10. Plaintiff FRIENDS OF THE EARTH:

a. Friends of the Earth, Inc. ("FoE") is a tax-exempt environmental advocacy organization founded in 1969 and incorporated in the District of Columbia, with offices in Washington, D.C. and San Francisco, California. FoE's mission is to defend the environment and champion a healthy and just world. One of FoE's main programs, undertaken in collaboration with the 70 member group affiliates of Friends of the Earth International, is the promotion of policies and actions to reduce greenhouse gas emissions and avoid irreparable climate change.

b. Friends of the Earth uses many tools to accomplish its greenhouse gas reduction goals, including promoting policies and actions that reduce the use of fossil fuels. One approach taken by FoE is to end government financing, tax and subsidy policies that provide incentives for fossil fuel use. FoE also works in a variety of ways to promote the widespread

adoption of clean, efficient, low-greenhouse gas technologies. One example is our successful petition to EPA to make fuel economy labels on new vehicles substantially more accurate, thereby promoting the sale of more fuel-efficient vehicles. FoE also initiated a campaign called *Scorched Earth*, which included filing legal petitions to force the National Park Service, the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the National Oceanic and Atmospheric Administration to initiate planning and mitigation measures to address global warming impacts on America's national parks, forests, wildlife refuges, and marine sanctuaries. Other actions taken by FoE to reduce the risk of climate change are: promoting the development, testing, and installation of less polluting energy sources and pressing businesses to use less energy and build more efficient products.

c. The health and environmental interests of FoE and its members are impacted by Defendants' failure to respond to our petitions to regulate greenhouse gas emissions from ships, aircraft, and nonroad engines. FoE's members have professional, scientific, educational, spiritual, aesthetic, and other interests in a stable climate. Members of FoE use, enjoy, and live in areas that are, or will be, negatively affected by 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. The professional interests of members of FoE are also harmed by climate disruption, with members experiencing diminished opportunities for accomplishing their professions, including reduced opportunities for undertaking fundamental biological research. FoE members have an interest in the continuing existence of species and their habitats that are threatened by global warming. FoE members have interests in experiencing healthy oceans and healthy marine habitats; these interests are harmed as ocean habitats continue to degrade as a result of climate change. FoE members and their families also live in areas that are negatively impacted by the intensified air pollution and smog associated with global warming. In sum,

FoE's members are personally and negatively affected by the continued release of pollutants that cause global warming and climate change.

d. Defendants have failed in their duty to respond to the petitions to regulate greenhouse emissions from ships, aircraft, and nonroad engines and thereby reduce greenhouse gas pollutants that cause climate change. Defendants' failure to respond to the petitions directly harms FoE and its members. A favorable decision in this case will redress those injuries. Ships, aircraft, and nonroad engines represent a significant portion of transportation sector emissions, and controlling these emissions is a necessary step in preventing climate change.

e. FoE and its members also suffer procedural and informational injuries related to Defendants' failure to initiate appropriate rulemaking procedures in response to the petitions. FoE and its members are actively involved in a variety of regulatory processes to reduce greenhouse gas emissions and prevent climate change. Defendants' failure to initiate a rulemaking procedure to regulate emissions from ships, aircraft, and nonroad engines violates the procedural rights of FoE and its members to participate beneficially in the rulemaking process. If and when Defendants respond to the petitions and begin a regulatory process, FoE and its members will participate in this process, will contribute to and gain information from the proceedings, and FoE will be able to carry out its mission to advocate in favor of controlling greenhouse gas emissions from these sources.

11. Plaintiff INTERNATIONAL CENTER FOR TECHNOLOGY ASSESSMENT:

a. The International Center for Technology Assessment ("ICTA") is a non-profit, bi-partisan organization committed to providing the public with full assessments and analyses of technological impacts on society. ICTA is devoted to fully exploring the economic, ethical, social, environmental and political impacts that can result from the applications of technology or technological systems. ICTA seeks to protect the environment, individuals, and

society from technologies that have advanced more rapidly than our ability to control the pollution they produce and the other social threats they pose. The rapid rise of new technologies in recent decades has brought new and complex threats to the environment. While traditionally the term “pollution” evoked images of roadside litter, chemical-contaminated rivers, or smoggy cityscapes, only in recent decades have people come to realize that pollution may permanently alter our world.

b. ICTA has had a global warming project since its inception, in 1994. In 1999, ICTA led a coalition of environmental organizations in petitioning the EPA to set emission standards for carbon dioxide and other motor vehicle greenhouse gas emissions under section 202 of the Clean Air Act. The denial of the ICTA petition and the ensuing litigation resulted in the seminal Supreme Court case, *Massachusetts v EPA*, 549 U.S. 497 (2007), which in turn has eventually resulted in the EPA beginning the CAA regulatory process for greenhouse gas emissions.

c. ICTA’s goal of protecting the environment and public from the impacts of new technological systems is impaired by EPA’s failure to act on these petitions. This harm includes greater costs incurred by ICTA in, *inter alia*, administrative petitioning, litigation, policy, advocacy, public education, and lobbying. ICTA will continue to be harmed by the consequences of EPA’s refusal to regulate greenhouse gas emissions from sources including nonroad sources. These costs could be avoided if EPA acted now on this petition.

d. ICTA also suffers procedural and informational injuries related to Defendants’ failure to initiate appropriate rulemaking procedures in response to the petitions. This failure violates the procedural rights of ICTA to participate beneficially in the rulemaking process. If and when Defendants respond to the petitions and begin the Clean Air Act regulatory process for greenhouse gas and black carbon emissions from ships, aircraft, and nonroad engines,

then ICTA will participate in this process, will both contribute to and gain information from it, and will be able to carry out their mission of protecting the environment and public from the climate impacts of new technological systems.

12. Plaintiff OCEANA:

a. Plaintiff Oceana is a non-profit international advocacy organization dedicated to protecting and restoring the world's oceans through policy, advocacy, science, law, and public education. Oceana has over 24,000 members around the world. Oceana is organized under the laws of the District of Columbia, and maintains its headquarters in Washington, D.C. It has offices or staff in five states—Alaska, California, Massachusetts, New York, and Oregon—and four foreign countries—Chile, Belgium, Belize, and Spain. Through its policy, scientific, litigation, and grass-roots activities, Oceana has been a prominent advocate for protecting threatened and endangered marine species and marine ecosystems. Many of these species, such as coral reefs, pteropods and sea turtles are threatened by global warming and ocean acidification caused by the oceans' absorption of carbon dioxide emissions.

b. Oceana's members use and enjoy the oceans for numerous activities, including fishing, scuba diving, snorkeling, boating, swimming, beach walking, research and study. Oceana's members value a healthy marine environment and recognize its importance to a healthy terrestrial environment through the regulation of the climate, cycling of carbon, and the production of the oxygen they breathe and the rain that feeds their crops. Oceana's members also consume seafood.

c. Oceana and its members suffer direct and immediate injury as a result of EPA's failure to regulate carbon dioxide emissions from ships, aircraft and nonroad vehicles and engines. Oceana's members' scientific, aesthetic and recreational interests are directly affected by environmental injury caused by carbon dioxide emissions that are altering the climate system

and increasing the ocean's acidity. Such injuries include injury to the growth rates of calcified marine organisms, including coral reefs that provide food, protection, income and recreation to coastal populations and millions of people across the planet, including many of Oceana's members. Coral reefs are also important habitat for millions of marine species that could find it difficult, if not impossible, to live if coral reefs disappear. Many commercial fisheries rely upon coral reefs and their loss could result in massive disruptions to these fish populations. Increasing ocean temperatures will cause marine populations to shift to cooler temperatures, increase the number of strong hurricanes, result in more coral bleaching events, and inundate important beach and coastal habitats. In tandem with increased ocean temperature, rising ocean acidity will make it more difficult for marine calcifiers to build their shells and skeletons, and will push some species into extinction, which could result in ripple effects throughout the oceans as species that depend on calcifiers struggle to find new sources of food and habitat. These changes due to rising temperature and acidity will, amongst other things, affect the ability of Oceana's members to live safely on the coasts, gain income and enjoyment from coral reefs, and eat seafood. These interests will continue to be impaired unless the Court grants the relief requested herein.

d. Oceana and its members also suffer procedural and informational injuries related to Defendants' failure to initiate appropriate rulemaking procedures in response to the petitions. This failure violates the procedural rights of Oceana and its members to participate beneficially in the rulemaking process. If and when Defendants respond to the petitions and begin the Clean Air Act regulatory process for greenhouse gas and black carbon emissions from ships, aircraft, and nonroad engines, then Oceana and its members will participate in this process, will both contribute to and gain information from it, and will be able to carry out their mission to advocate in favor of controlling greenhouse gas emissions. If carried out properly, the resulting

regulatory process will result in a substantial decrease in greenhouse and other pollution from ships, aircraft, and nonroad engines.

13. Defendant UNITED STATES ENVIRONMENTAL PROTECTION AGENCY is a federal agency charged by the Clean Air Act with protecting and enhancing the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population. *See* 42 U.S.C. § 7401(b). EPA is required by section 213(a) of the Act, 42 U.S.C. § 7547(a), to promulgate regulations setting standards applicable to emissions from nonroad vehicles and engines, including marine vessels and engines. EPA is also required by section 231 of the Act, 42 U.S.C. § 7571(a), to issue emissions standards applicable to emissions of air pollutants from aircraft engines.

14. Defendant LISA JACKSON is the Administrator of the U.S. Environmental Protection Agency, and is sued in her official capacity. Ms. Jackson is ultimately responsible for ensuring that EPA complies with and fully implements the Act in accord with Congress's intentions.

### **FACTUAL BACKGROUND**

15. According to EPA, “[w]arming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.” 74 Fed. Reg. 66,517 (Dec. 15, 2009) (Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act) (“Endangerment Finding”).

16. EPA found that “the scientific evidence is compelling that elevated concentrations of heat-trapping greenhouse gases are the root cause of recently observed climate change,” *id.* at 66,518, and that “these high atmospheric concentrations of greenhouse gases are the unambiguous result of human activities,” *id.* at 66,517.

17. EPA recognized that “the climate change associated with elevated atmospheric concentrations of carbon dioxide and other well-mixed greenhouse gases have the potential to affect essentially every aspect of human health, society and the natural environment.” *Id.* at 66,523.

18. Specifically, climate change will “increase the risk of morbidity and mortality” due to direct temperature increases, air quality degradation, the potential for changes in vector-borne diseases, and the potential for changes in the severity and frequency of extreme weather events. *Id.* at 66,524.

19. Additionally, global warming pollution and resultant climate change is likely to threaten water resources and coastal areas and impact climate-sensitive sectors, including agriculture, forestry, energy, and infrastructure. *Id.* at 66,531.

20. The most significant human-generated causes of climate change are the emissions of the following six long-lived greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. *Id.*

21. The Supreme Court recognized that there is a consensus in the scientific community that the increasing atmospheric concentration of carbon dioxide is a leading cause of global climate change. *Massachusetts v. EPA*, 549 U.S. at 504.

22. Carbon dioxide is a “radiative forcing” gas that alters the balance of incoming and outgoing energy in the Earth’s atmosphere. Carbon dioxide allows sunlight to pass through it and warm the earth, but traps heat radiation leaving the Earth. As levels of atmospheric carbon dioxide increase, primarily from the burning of fossil fuels, less and less heat escapes the atmosphere to space, and the planet warms.



23. In addition to the six long-lived greenhouse gases discussed above, there are other warming agents emitted by human activity that contribute to climate change. 74 Fed. Reg. 66,520. These include nitrogen oxides, black carbon, and water vapor. *Id.*

24. Nitrogen oxides are a family of several compounds, including nitrous oxide, that contain nitrogen and oxygen molecules in varying combinations. Although, with the exception of nitrous oxide, nitrogen oxides are not themselves greenhouse gases, they react with other substances in the atmosphere to form the greenhouse gas ozone.

25. Black carbon, commonly known as soot, is not a greenhouse gas; rather, it is an aerosol particle that results from the incomplete combustion of carbon contained in fossil fuels and biomass, and remains in the atmosphere for only about a week. *Id.* Black carbon is a potent warmer, exerting effects on the global climate system while suspended in the atmosphere, and on regional climate when deposited on snow and ice. *Id.* When suspended in the air, black carbon warms by absorbing and trapping heat in the top of the atmosphere. When deposited onto snow or ice, black carbon reduces reflectivity, accelerates melting, and causes the surface to absorb more of the sun's energy. Thus, when deposited on snow or ice, black carbon reduces the snow's reflectivity and accelerates the melting process.

26. Water vapor is a globally distributed greenhouse gas that has a positive radiative forcing effect when emitted at high altitude.

#### **I. Global Warming Emissions from Marine Vessels and Engines**

27. Ocean-going marine vessels are responsible for moving 80 percent of all goods shipped into and out of the United States. The large engines that power these ships emit a significant share of the pollutants that cause global climate change, including carbon dioxide, nitrogen oxides, and black carbon. In fact, a single container ship emits more pollution than 2,000 diesel trucks. Carbon dioxide emissions from marine engines in U.S. waters alone are

estimated to be between 600 to 900 million metric tons per year (546 to 818 million short tons per year), equivalent to the emissions from roughly 130 to 195 million cars for one year.

28. In 2008, marine vessels entering U.S. ports accounted for 4.4 percent of domestic mobile source greenhouse gas emissions.

29. Of even greater concern is the projected growth in greenhouse gas emissions from shipping. Current studies project that global emissions of climate pollutants from marine vessels will double 2002 levels by 2020 and triple by 2030.

## **II. Global Warming Emissions from Aircraft Engines**

30. Aircraft account for approximately 11 percent of U.S. mobile source carbon dioxide emissions and three percent of the total domestic greenhouse gas inventory. Aircraft engines also emit significant quantities of nitrogen oxides and water vapor.

31. Aircraft have a disproportionate effect on global warming compared to other sources due to the effect of high-altitude emissions. For example, emissions of nitrogen oxides in the upper troposphere, where most aviation emissions occur, result in greater concentrations of ozone than ground-level emissions. In addition, aircraft engines emit water vapor, a greenhouse gas that forms condensation trails, or “contrails,” when released at high altitude. Contrails themselves have a positive climate forcing effect. They are also associated with increased formation of cirrus clouds which tend to warm the surface of the Earth, further contributing to global warming. A recent report by the UK Royal Commission on Environmental Pollution stated that the net effect of aviation-induced ozone, contrail, and cirrus formation is expected to be three times the radiative forcing due to the CO<sub>2</sub> emitted from aircraft.

32. Greenhouse gas emissions from aircraft are also anticipated to increase substantially in the coming decades because of a projected growth in air transport both in the United States and worldwide. According to the Federal Aviation Administration, greenhouse gas

emissions from domestic aircraft are expected to increase 60 percent by 2025, and the Intergovernmental Panel on Climate Change projects that emissions of carbon dioxide from aircraft engines will more than triple by mid-century.

### **III. Global Warming Emissions from Nonroad Engines and Vehicles**

33. Nonroad vehicles and engines are used in the agricultural, construction, commercial, industrial, lawn and garden, recreational, and logging sectors.

34. In 2008, nonroad engines and vehicles were responsible for approximately nine percent of U.S. mobile source carbon dioxide emissions, or approximately 220 million tons, as well as significant black carbon emissions. Nearly a third of these emissions are produced by the construction and mining sectors, while a fifth are from agriculture. The most significant source of carbon dioxide emissions within these sectors is diesel-burning vehicles.

35. EPA projects that carbon dioxide emissions from the nonroad sector will increase approximately 46 percent between 2006 and 2030.

36. Cumulatively, aircraft, marine and nonroad engines constitute approximately 24 percent of U.S. mobile source greenhouse gas emissions, and emit approximately 290,000 tons of black carbon annually. *See* 75 Fed. Reg. 12232 (*EPA Draft Inventory of U.S Greenhouse Gas Emissions and Sinks: 1990 – 2008*) (March 15, 2010). Thus, the regulation of greenhouse gas and black carbon emissions from aircraft, marine vessels, and other nonroad vehicles and engines would reduce the rate of global warming and the associated impacts to human health and welfare.

## LEGAL BACKGROUND

### I. Statutory Context

37. The Clean Air Act, 42 U.S.C. §§ 7401 *et seq.*, provides the Administrator of the U.S. Environmental Protection Agency with the exclusive authority to regulate the emission of pollutants from aircraft, marine, and nonroad vehicles and engines.

38. Section 302(g) of the Clean Air Act broadly defines the term “air pollutant” to include:

[A]ny air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term ‘air pollutant’ is used.

*Id.* at § 7602(g).

39. Section 213(a) of the Act, 42 U.S.C. § 7547(a), creates a regulatory program to reduce emissions of pollutants from “nonroad” engines and vehicles, a broad category of mobile sources that includes marine vessels and their engines. *See* 42 U.S.C. § 7550(10), (11); 40 C.F.R. § 89.2 (defining “marine engine” and “marine vessel” in the context of regulating emissions from nonroad vehicles and engines).

40. This section directs EPA to conduct a study of emissions from nonroad engines and nonroad vehicles to determine whether such emissions cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7547(a)(1).

41. If EPA determines that nonroad emissions of carbon monoxide, nitrogen oxides, and volatile organic compounds contribute to air pollution, it must regulate these pollutants. *Id.* § 7547(a)(2)-(3).

42. EPA issued regulations to control emissions of these pollutants from various categories of nonroad engines and vehicles. *See, e.g.*, 63 Fed. Reg. 56,968 (Oct. 23, 1998 ) (“Control of Emissions of Air Pollution from Nonroad Diesel Engines; Final Rule”); 69 Fed. Reg. 38,958 (June 29, 2004) (Control of Emissions of Air Pollution from Nonroad Diesel Engines and Fuel; Final Rule); 75 Fed. Reg. 22,896 (Apr. 30, 2010) (“Control of Emissions From New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder; Final Rule”).

43. Section 213(a)(4) also sets up a framework for the regulation of additional pollutants and requires EPA to determine: (i) whether emissions from new nonroad engines or vehicles “significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare,” and (ii) whether a class or category of new nonroad engines or vehicles “cause[s] or contribute[s] to such air pollution.” 42 U.S.C. § 7547(a)(4).

44. If EPA finds that emissions of pollutants other than carbon monoxide, nitrogen oxides, or volatile organic compounds from new nonroad engines or vehicles, in the aggregate, significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, it may establish standards applicable to specific classes or categories of new nonroad engines or vehicles that the EPA determines cause or contribute to such air pollution. *Id.*; *see also Bluewater Network v. EPA*, 370 F.3d 1, 13-14 (D.C. Cir. 2004) (explaining the operation of section 213(a)(4)).

45. Under section 231(a)(2)(A), the Administrator “shall, from time to time, issue proposed emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines which in his judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7571(a)(2)(A).

46. The Act further requires EPA to promulgate final regulations within 90 days of the issuance of its proposed emissions standards. *Id.* at § 7571(a)(3).

## **II. Regulatory History**

### **(i) The Petitions and Notice**

47. The Supreme Court firmly established that greenhouse gases – including carbon dioxide – constitute air pollutants within the meaning of section 302(g) of the CAA.

*Massachusetts v. EPA*, 549 U.S. 497, 532 (2007).

48. On October 3, 2007, Plaintiffs petitioned EPA to regulate greenhouse gases from shipping under Section 213 of the Clean Air Act by mandating cleaner fuels, reduced vessel speeds, and other control technologies.

49. On December 5, 2007, Plaintiffs submitted a second petition for a rulemaking under Section 231 of the CAA to control and reduce the emissions of air pollutants from aircraft that contribute to global climate change.

50. On January 29, 2008, Plaintiffs submitted a similar petition for nonroad vehicles under Section 213 of the Act.

51. The petitions requested that EPA provide a substantive response to each petition within 180 calendar days of their filing.

52. Those 180 days expired on March 31, 2008 for the marine vessels petition, on June 2, 2008 for the aircraft petition, and on July 29, 2008 for the nonroad petition.

53. On July 31, 2008, Plaintiffs filed a 180-day notice of our intent to file suit for unreasonable delay as required by section 304(a) the Clean Air Act. 42 U.S.C. § 7604(a), (b)(1).

54. This notice period expired on January 31, 2009.

**(ii) The Advance Notice of Proposed Rulemaking**

55. On July 30, 2008, EPA issued an Advance Notice of Proposed Rulemaking Regulating Greenhouse Gas Emissions Under the Clean Air Act. 73 Fed. Reg. 44,354 (July 30, 2008) (“ANPR”).

56. Despite being labeled an “Advance Notice of Proposed Rulemaking,” the ANPR does not indicate whether EPA intends to regulate greenhouse gases, does not propose a specific course of action for doing so, and is not responsive to the specific requests made in the petitions. Instead it “presents information relevant to, and solicits public comment on, how to respond to the U.S. Supreme Court’s decision in *Massachusetts v. EPA*,” 73 Fed. Reg. at 44,354; compiles comments from other government agencies on the subject of regulating greenhouse gas emissions, *id.* at 44,356-96; reviews certain provisions of the Clean Air Act, *id.* at 44,417-23; and offers a broad summary of all possible ways to approach the issue of greenhouse gases, *see id.* at 44,432-520.

57. Although the ANPR summarizes the petitions, *see id.* at 44,458-62, it does not make a definitive finding as to whether greenhouse gas emissions from aircraft, marine vessels and other nonroad engines endanger public health or welfare. Nor does it offer a timetable or proposal for regulating such emissions. To the contrary, although it states that there is a “significant potential” to reduce greenhouse gas emissions from the nonroad sector, *id.* at 44,462, the ANPR asserts that the Clean Air Act is “ill-suited for the task of regulating greenhouse gases” at all. *Id.* at 44,355.

58. On November 26, 2008, Plaintiffs submitted comments to EPA on the ANPR’s treatment of aircraft, marine and nonroad emissions of greenhouse gases. Plaintiffs specifically commented that because the ANPR failed to either propose substantive rules to control global

warming pollutants from marine vessels and aircraft or to definitively reject the petitions, the ANPR is an inadequate response to the petitions.

59. The comment period for the submission of comments on the ANPR expired on November 28, 2008. *Id.* at 44,354; Docket ID No. EPA–HQ–OAR–2008–0318. To date, EPA has taken no further action concerning the regulation of greenhouse gas emissions from aircraft, marine and nonroad engines under sections 213 and 231 of the Clean Air Act.

**(iii) Regulation of Greenhouse Gases Under Section 202(a) of the Clean Air Act**

60. On December 15, 2009, EPA issued a finding under section 202(a) of the Clean Air Act, concluding that current and projected concentrations in the atmosphere of the six long-lived greenhouse gases—carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride—“may reasonably be anticipated both to endanger public health and to endanger public welfare.” 74 Fed. Reg. 66,497.

61. EPA issued a separate finding that “emissions of well-mixed greenhouse gases from the transportation sources covered under CAA section 202(a) contribute to the total greenhouse gas air pollution, and thus to the climate change problem, which is reasonably anticipated to endanger public health and welfare.” *Id.* at 66,499.

62. EPA examined the observed and projected impacts on public health of elevated atmospheric concentrations of greenhouse gases and associated climate change, and concluded that climate change presents health risks associated with changes in air quality, increases in temperatures, changes in extreme weather events, increases in food- and water-borne pathogens, and changes in aeroallergens. *Id.* at 66,497.

63. These risks include serious adverse health impacts due to increases in ambient ozone; increased mortality and morbidity associated with increases in average temperatures;



increases in the frequency and severity of extreme weather events; and adverse changes in pathogen-borne disease vectors. *Id.* at 66,497-98.

64. EPA found that certain groups, including children, the elderly, and the poor, are most vulnerable to these climate-related health effects. *Id.* at 66,498.

65. EPA determined that elevated concentrations of greenhouse gases and associated climate change endanger public welfare by threatening food production and agriculture, forestry, water resources, coastal areas, energy, infrastructure and settlements, and ecosystems and wildlife. *Id.* at 66,498-99.

66. EPA concluded that “[l]ooking across all of the sectors discussed above, the evidence provides compelling support for finding that greenhouse gas air pollution endangers the public welfare of both current and future generations. The risk and the severity of adverse impacts on public welfare are expected to increase over time.” *Id.*

67. Having determined that greenhouse gases are air pollutants that endanger the public health and welfare, EPA must determine which sources “cause and contribute” this pollution and issue regulations to control emissions from these sources. *See* 42 U.S.C. §§ 7547(a), 7571(a).

68. Plaintiffs’ petitions request that EPA determine whether aircraft, marine vessels and other nonroad sources cause and contribute to greenhouse gas pollution, and, if so, to promulgate regulations to reduce emissions from these sources.

69. To date, EPA has failed to respond to these petitions.

## **CLAIMS FOR RELIEF**

### **FIRST CLAIM FOR RELIEF Violations of the Clean Air Act**

70. Plaintiffs re-allege, as if fully set forth herein, each allegation contained in this complaint.

71. EPA's failure to respond to Plaintiffs' October 2007 petition to regulate greenhouse gases and black carbon from marine vessels; Plaintiffs' December 2007 petition to regulate greenhouse gases from aircraft; and Plaintiffs' January 2008 petition to regulate greenhouse gases from other nonroad engines and vehicles, constitutes unreasonable delay under 42 U.S.C. § 7604(a).

### **SECOND CLAIM FOR RELIEF Violations of Clean Air Act Section 213(a) – Marine Vessels and Engines**

72. Plaintiffs re-allege, as if fully set forth herein, each allegation contained in this complaint.

73. As alleged above, section 213(a)(4) requires EPA to determine whether emissions from new marine vessels “significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare,” and whether a class or category of new marine vessels “cause[s] or contribute[s] to such air pollution.” *Id.* § 7547(a)(4). If EPA finds that emissions of pollutants other than carbon monoxide, nitrogen oxides, or volatile organic compounds from new marine vessels, in the aggregate, significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, then the EPA “may promulgate (and from time to time revise) such regulations as the Administrator deems appropriate containing standards applicable to those classes or categories of [new marine vessels] ... which in the Administrator’s judgment cause or contribute to such air pollution.” *Id.*

74. EPA's failure to determine whether emissions of greenhouse gases and black carbon from marine vessels cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare pursuant to section 213(a) of the Act, 42 U.S.C. § 7547(a), constitutes unreasonable delay under 42 U.S.C. § 7604(a).

**THIRD CLAIM FOR RELIEF**  
**Violations of Clean Air Act Section 213(a) – Nonroad Vehicles and Engines**

75. Plaintiffs re-allege, as if fully set forth herein, each allegation contained in this complaint.

76. As alleged above, section 213(a)(4) requires EPA to determine whether emissions from new nonroad vehicles and engines “significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare,” and whether a class or category of new nonroad vehicles and engines “cause[s] or contribute[s] to such air pollution.” *Id.* § 7547(a)(4). If EPA finds that emissions of pollutants other than carbon monoxide, nitrogen oxides, or volatile organic compounds from new nonroad vehicles and engines, in the aggregate, significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, then the EPA “may promulgate (and from time to time revise) such regulations as the Administrator deems appropriate containing standards applicable to those classes or categories of new nonroad engines and new nonroad vehicles ... which in the Administrator’s judgment cause, or contribute to, such air pollution.” *Id.*

77. EPA's failure to determine whether emissions of greenhouse gases and black carbon from nonroad vehicles and engines cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare pursuant to section 213(a) of the Act, 42 U.S.C. § 7547(a), constitutes unreasonable delay under 42 U.S.C. § 7604(a).

**FOURTH CLAIM FOR RELIEF**  
**Violations of Clean Air Act Section 231(a) – Aircraft Engines**

78. Plaintiffs re-allege, as if fully set forth herein, each allegation contained in this complaint.

79. As alleged above, section 231(a)(2)(A) of the Clean Air Act requires that the Administrator “shall ... issue proposed emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines which in his judgment causes, or contributes to, air pollution which may reasonably be anticipated to endanger public health or welfare.” 42 U.S.C. § 7571(a)(2)(A).

80. EPA’s failure to determine whether emissions of greenhouse gases from aircraft engines cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare pursuant to section 231(a) of the Act, 42 U.S.C. § 7571(a), constitutes unreasonable delay under 42 U.S.C. § 7604(a).

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiffs request that this Court:

A. Declare that EPA’s failure to respond to Plaintiffs’ October 2007 petition to regulate greenhouse gases and black carbon from marine vessels; Plaintiffs’ December 2007 petition to regulate greenhouse gases from aircraft; and Plaintiffs’ January 2008 petition to regulate greenhouse gases from other nonroad engines and vehicles, constitutes an unreasonable delay under 42 U.S.C. § 7604(a); and direct EPA to issue a substantive response to these petitions within 90 days after entry of this Court’s judgment.

B. Declare that EPA’s delay in determining whether carbon dioxide, nitrous oxide, and black carbon emissions from new marine engines and vehicles cause or significantly contribute to air pollution which may reasonably be anticipated to endanger public health and

welfare pursuant to section 213(a) of the Clean Air Act, 42 U.S.C. § 7547(a), is unreasonable; and direct EPA to issue such a determination within 90 days after entry of this Court's judgment.

C. Declare that if EPA, upon making a determination as directed under paragraph B above, finds that emissions of greenhouse gases and black carbon from new marine vessels and engines cause or contribute to air pollution which may be reasonably anticipated to endanger public health and welfare, then EPA must initiate rulemaking pursuant to section 213(a) to establish standards to limit such emissions, or explain the reasons for its decision not to act.

D. Declare that EPA's delay in determining whether carbon dioxide and black carbon emissions from other nonroad vehicles and engines cause or significantly contribute to air pollution which may reasonably be anticipated to endanger public health and welfare pursuant to section 213(a) of the Clean Air Act, 42 U.S.C. § 7547(a), is unreasonable; and direct EPA to issue such a determination within 90 days after entry of this Court's judgment.

E. Declare that if EPA, upon making a determination as directed under paragraph D above, finds that emissions of carbon dioxide and black carbon from new nonroad vehicles and engines cause or contribute to air pollution which may be reasonably anticipated to endanger public health and welfare, then EPA must initiate rulemaking pursuant to section 213(a) to establish standards to limit such emissions, or explain the reasons for its decision not to act.

F. Declare that EPA's delay in determining whether emissions of greenhouse gases from aircraft engines cause or significantly contribute to air pollution which may reasonably be anticipated to endanger public health or welfare pursuant to section 231(a) of the Clean Air Act, 42 U.S.C. § 7571(a), is unreasonable; and direct EPA to issue such a determination within 90 days after entry of this Court's judgment.

G. Declare that if EPA, upon making a determination as directed under paragraph F above, finds that emissions of greenhouse gases from new aircraft engines cause or contribute to


air pollution which may be reasonably anticipated to endanger public health and welfare, then EPA must initiate rulemaking pursuant to section 231(a) to establish standards to limit such emissions.

H. Award Plaintiffs its costs of litigation, including reasonable attorney and expert witness fees, pursuant to 42 U.S.C. § 7604(d).

I. Grant Plaintiffs such further and additional relief as the Court may deem just and proper.

Respectfully submitted,

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