

No. 15-1363 & Consolidated Cases

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

WEST VIRGINIA, et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Respondent.

On Petition for Review of Final Action of the
United States Environmental Protection Agency

UNOPPOSED MOTION OF AMERICAN LUNG ASSOCIATION,
CENTER FOR BIOLOGICAL DIVERSITY, CLEAN AIR COUNCIL,
CLEAN WISCONSIN, CONSERVATION LAW FOUNDATION,
ENVIRONMENTAL DEFENSE FUND, NATURAL RESOURCES
DEFENSE COUNCIL, OHIO ENVIRONMENTAL COUNCIL, AND
SIERRA CLUB FOR LEAVE TO INTERVENE IN SUPPORT OF
RESPONDENT

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October 27, 2015

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Not-for-profit environmental and public-health advocacy organizations American Lung Association, Center for Biological Diversity, Clean Air Council, Clean Wisconsin, Conservation Law Foundation, Environmental Defense Fund, Natural Resources Defense Council, Ohio Environmental Council, and Sierra Club (collectively, the “Organizations”) move to intervene in support of respondent Environmental Protection Agency in the above-captioned consolidated petitions challenging EPA’s final carbon-pollution emission guidelines for existing power plants (the “Clean Power Plan”). *See* 80 Fed. Reg. 64,662 (Oct. 23, 2015); Fed. R. App. P. 15(d).

Respondent EPA has indicated that it consents to this motion; counsel for petitioners State of West Virginia et al. (Case No. 15-1363) state that they do not take a position on this motion at this time.¹ Pursuant to D.C. Circuit Rule 15(b), this constitutes a motion to intervene in all petitions for review of the Clean Power Plan.

¹ Organizations’ counsel also sought the position of other petitioners in the cases consolidated with Case No. 15-1363 as of the evening of October 26. Petitioners in Case Nos. 15-1364, -1365, and -1366 have stated they do not oppose this motion. Petitioners in Case Nos. 15-1367, -1368, -1370, -1371, -1373, -1374, -1375, -1376, -1377, -1378, -1379, -1380, -1382, -1383, and -1386 have indicated that they take no position on this motion at this time. Petitioners in Case Nos. 15-1372 and -1375 did not state a position as of the time of this filing.

INTRODUCTION

The Clean Power Plan establishes a framework, pursuant to Clean Air Act section 111(d), 42 U.S.C. § 7411(d), for setting carbon dioxide (“CO₂”) emission standards for existing fossil fuel-fired power plants. Under the Plan, states can choose to develop their own implementation plans establishing CO₂ emission standards for existing fossil fuel-fired power plants. 80 Fed. Reg. at 64,663–64. States that opt to develop such plans have until September 2018 to submit complete plans for EPA review and approval, after a basic, non-binding, initial submittal in September 2016. *Id.* at 64,669. If a state does not submit a timely plan, or submits one that EPA cannot approve, EPA must develop and directly administer a federal plan that establishes CO₂ emission standards for existing power plants in that state. 42 U.S.C. § 7411(d)(2)(A). Emission-reduction standards for power plants will not begin to take effect until 2022, and will be gradually phased in between 2022 and 2030, under either a state- or EPA-implemented plan. *See* 80 Fed. Reg. at 64,743–44.

The Organizations seek to intervene to defend and assure prompt implementation of the Clean Power Plan. Their motion is timely, *see* Fed. R. App. P. 15(d) (allowing thirty days after the filing of a petition to move for intervention), and their participation will not delay these proceedings or prejudice any party.

STATEMENT OF INTERESTS AND GROUNDS FOR INTERVENTION

Federal Rule of Appellate Procedure 15(d) “requires the intervenor to file a motion setting forth its interest and the grounds on which intervention is sought.” *Synovus Fin. Corp. v. Bd. of Governors of Fed. Reserve Sys.*, 952 F.2d 426, 433 (D.C. Cir. 1991).

The Organizations are committed to protecting their members and others from the impacts of dangerous air pollution from existing power plants, including climate change and other harms to public health and welfare.² This Court granted several of the Organizations leave to intervene in premature challenges to the Clean Power Plan in *In re West Virginia*, D.C. Cir. No. 15-1277, *In re Peabody Energy Corp.*, D.C. Cir. No. 15-1284, and *In re Murray Energy Corp.*, D.C. Cir. No. 14-1112. The Court has repeatedly allowed the movant Organizations to intervene in challenges to EPA Clean Air Act regulations that address greenhouse-gas pollution and climate change.³ The

² See Ex. A, Decl. of Harold Wimmer (American Lung Association) ¶¶ 2–3; Ex. B, Decl. of Kassia R. Siegel (Center for Biological Diversity) ¶¶ 2–11; Ex. C, Decl. of Joseph O. Minott (Clean Air Council) ¶¶ 3–5, 23; Ex. D, Decl. of Keith A. Reopelle (Clean Wisconsin) ¶¶ 3, 5; Ex. E, Decl. of Douglas I. Foy (Conservation Law Foundation) ¶¶ 2–4; Ex. F, Decl. of John Stith (Environmental Defense Fund) ¶¶ 3–6; Ex. G, Decl. of Gina Trujillo (Natural Resources Defense Council) ¶¶ 5–7; Ex. H, Decl. of Heather Taylor-Miesle (Ohio Environmental Council) ¶¶ 2–4, 6, 8–10, 13–18; Ex. I, Decl. of Mary Anne Hitt (Sierra Club) ¶¶ 3, 5–6, 9–12.

³ See, e.g., *West Virginia v. EPA*, D.C. Cir. No. 14-1146; *Plant Oil Powered Diesel Fuel Sys., Inc. v. EPA*, D.C. Cir. No. 12-1428; *Perry v. EPA*, D.C. Cir. No.

Court's practice of granting intervention in such cases demonstrates that groups like the Organizations have a right to defend government actions that protect their concrete interests, and that such groups can offer a distinct perspective on those actions.

The Organizations have significant interests in reducing CO₂ and other dangerous air pollution from power plants, to protect the health, welfare, economic, recreational, and aesthetic interests of their members.⁴ EPA has determined that emissions of greenhouse gases including CO₂ threaten public health and welfare. *See* Endangerment Finding, 74 Fed. Reg. 66,496, 66,497-98 (Dec. 15, 2009); *see also Coal. for Responsible Regulation, Inc. v. EPA*, 684 F.3d 102, 117-126 (D.C. Cir. 2012), *aff'd in part, rev'd in part on other grounds, Utility Air Regulatory Grp. v. EPA*, 134 S. Ct. 2427 (2014) (upholding Endangerment

11-1128 (consolidated with *Texas v. EPA*, D.C. Cir. No. 10-1425); *Las Brisas Energy Ctr., LLC v. EPA, et al.*, D.C. Cir. No. 12-1248; *Southeastern Legal Found. v. EPA*, D.C. Cir. No. 10-1131; and *Coal. for Responsible Regulation, Inc. v. EPA*, D.C. Cir. No. 10-1073.

⁴ *See, e.g.*, Ex. C, Minott Decl. ¶¶ 5, 7-12, 16-23; Ex. D, Reopelle Decl. ¶¶ 4-5, 8-19; Ex. E, Foy Decl. ¶¶ 4, 6-10, 13-16; Ex. H, Taylor-Miesle Decl. ¶¶ 4-18; Ex. J, Decl. of Jane Reardon (American Lung Association) ¶¶ 2-3, 6-9, 11-15, 17-19; Ex. K, Decl. of Jenny E. Ross (Center for Biological Diversity) ¶¶ 3, 5, 10-34; Ex. L, Decl. of Sara Molyneaux (Conservation Law Foundation) ¶¶ 6-10, 13-16; Ex. M, Decl. of Art Cooley (Environmental Defense Fund) ¶¶ 2-15; Ex. N, Decl. of Denise Fort (Environmental Defense Fund) ¶¶ 1, 10-15; Ex. O, Decl. of Marilyn Marsh-Robinson (Environmental Defense Fund) ¶¶ 1, 5, 9-11; Ex. P, Decl. of Elizabeth Coplon (Natural Resources Defense Council) ¶¶ 4-6; Ex. Q, Decl. of Dolores V. Leonard (Sierra Club) ¶¶ 4, 10-20; Ex. R, Decl. of Joanne Pannone (Sierra Club) ¶¶ 3, 5-21.

Finding); 80 Fed. Reg. 64,683–88 (concluding that more recent scientific assessments confirm the Endangerment Finding).

Power plants are responsible for approximately forty percent of the nation’s anthropogenic CO₂ emissions—more than any other type of air-pollution source.⁵ Emissions of CO₂ from power plants contribute to climate change immediately and continue to do so for as long as they remain and accumulate in the atmosphere—up to several centuries after their release. 74 Fed. Reg. at 66,518–19; *see also* 80 Fed. Reg. at 64,682. The Clean Power Plan will help to reduce the growth of atmospheric CO₂ concentrations and thereby reduce the threats that climate change poses to the Organizations’ members.⁶ Delay, weakening, or invalidation of the Clean Power Plan would harm the Organizations’ members by exacerbating the impacts of climate change.

The Clean Power Plan also will reduce existing power plants’ emissions of smog- and soot-forming pollutants such as sulfur dioxide, nitrogen oxides,

⁵ *See* EPA, EPA 430-R-14-003, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2012*, at 2-4 tbl. 2-1 (2014), available at <http://www3.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2014-Main-Text.pdf> (38% of total 2012 emissions attributable to Electricity Generation, a subcategory of Fossil Fuel Combustion).

⁶ *See, e.g.*, Ex. C, Minott Decl. ¶¶ 7–23; Ex. D, Reopelle Decl. ¶¶ 15–19; Ex. E, Foy Decl. ¶¶ 6–17; Ex. H, Taylor-Miesle Decl. ¶¶ 4, 6–18; Ex. J, Reardon Decl. ¶¶ 3–20; Ex. K, Ross Decl. ¶¶ 3-5, 10–34; Ex. L, Molyneaux Decl. ¶¶ 11–19; Ex. M, Cooley Decl. ¶¶ 10–15; Ex. N, Fort Decl. ¶¶ 8–15; Ex. O, Marsh-Robinson Decl. ¶¶ 9–11; Ex. P, Coplon Decl. ¶¶ 4–6; Ex. Q, Leonard Decl. ¶¶ 10–20; Ex. R, Pannone Decl. ¶¶ 6–18, 20–21.

and fine particles. *See* 80 Fed. Reg. at 64,670, 64,680–81. These pollution reductions will lower the rates of asthma attacks, respiratory disease, heart attacks, and premature death that occur each year as a result of exposure to such pollutants,⁷ reducing the risks these serious illnesses pose to the Organizations' members and their families.⁸

For years, the Organizations have advocated for federal control of greenhouse-gas pollution. They participated extensively in the regulatory and legal proceedings leading up to EPA's issuance of the Clean Power Plan. For example, several of the Organizations were petitioners in *Massachusetts v. EPA*, in which the Supreme Court held that greenhouse gases are air pollutants subject to control under the Clean Air Act. *See* 549 U.S. 497, 532 (2007). Several of the Organizations also challenged EPA's 2006 refusal to set CO₂ emission standards for power plants, which this Court remanded to EPA for

⁷ EPA has cited estimates that by 2030, the benefits attributable to the Clean Power Plan will include 90,000 fewer asthma attacks (also known as "asthma exacerbations") in children and teens, 160,000 fewer lost work days, and more than 3,500 avoided premature deaths. *See* EPA, EPA-452/R-15-003, *Regulatory Impact Analysis for the Clean Power Plan Final Rule*, at 4-31 tbl. 4-24 (Aug. 2015), available at <http://www.epa.gov/airquality/cpp/cpp-final-rule-ria.pdf> (summarizing health benefits associated with anticipated reductions in ozone and fine-particle pollution). EPA also valued the climate and health benefits of implementing the Plan in the tens of billions of dollars. *See id.* at 4-45 tbl. 4-31.

⁸ *See, e.g.*, Ex. C, Minott Decl. ¶¶ 11, 19; Ex. H, Taylor-Miesle Decl. ¶¶ 8–14, 18; Ex. J, Reardon Decl. ¶¶ 6–19; Ex. L, Molyneaux Decl. ¶¶ 9–10, 16–17; Ex. M, Cooley Decl. ¶ 13; Ex. N, Fort Decl. ¶ 11; Ex. Q, Leonard Decl. ¶¶ 10–11, 13–17, 19; Ex. R, Pannone Decl. ¶¶ 5–6, 10–18, 20–21.

action consistent with *Massachusetts*. See *New York v. EPA*, No. 06-1322, Order on Motion to Govern (D.C. Cir. Sept. 24, 2007). The Organizations also participated in EPA's rulemaking process for the Clean Power Plan.⁹ The Organizations' long history of advocacy in favor of CO₂ emission standards for power plants underscores their interests in intervening to defend the Plan.

The Organizations also have Article III standing. Petitioners have asked this Court to issue an immediate stay of the Clean Power Plan, *see, e.g.*, Oct. 23 Mot. for Stay and for Expedited Consideration, Case No. 15-1363, at 1, and to hold the Plan unlawful and set it aside following expedited judicial review, *see id.*; Oct. 23 Pet. for Review, Case No. 15-1363, at 2. These outcomes would substantially injure the Organizations, which work to curb the harmful effects of climate change, *supra* 2-6, and their members. The Organizations' members use, own, and enjoy property and natural resources that are harmed and

⁹ *See, e.g.*, EPA Docket ID Nos. EPA-HQ-OAR-2013-0602-26818 (Natural Resources Defense Council); EPA-HQ-OAR-2013-0602-23140 (Environmental Defense Fund); EPA-HQ-OAR-2013-0602-24029 (Sierra Club); EPA-HQ-OAR-2013-0602-25292 (Center for Biological Diversity); EPA-HQ-OAR-2013-0602-23044 (American Lung Association); EPA-HQ-OAR-2013-0602-23034 (Clean Air Council); EPA-HQ-OAR-2013-0602-23120 & -22711 (Clean Wisconsin); EPA-HQ-OAR-2013-0602-23369 (Conservation Law Foundation); and EPA-HQ-OAR-2013-0602-35984 (Ohio Environmental Council). Thousands of individual members of the Organizations submitted comments.

threatened by climate change.¹⁰ Some members suffer from and have family members who have suffered from climate-change-related illnesses.¹¹

Invalidation of or delayed implementation of the Plan would negate or diminish its climate-protection benefits and exacerbate climate change's threats to these members' health and their use and enjoyment of their property and natural resources. This is sufficient to establish injury, for standing purposes. *See, e.g., Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S. 167, 181–85 (2000) (disrupted enjoyment of natural resources and decreased property values due to pollution concerns are injuries in fact); *Sierra Club v. EPA*, 129 F.3d 137, 138–39 (D.C. Cir. 1997) (organization had standing to challenge delay in implementation of pollution-control measures that would benefit its members).

The Organizations and their members would similarly be harmed if the reductions in smog- and soot-forming pollutants that will result from implementation of the Clean Power Plan are lost. The Organizations' members suffer from, and have family members and patients who suffer from,

¹⁰ *See, e.g.,* Ex. A, Wimmer Decl. ¶¶ 8–9; Ex. C, Minott Decl. ¶¶ 17–22; Ex. D, Reopelle Decl. ¶¶ 15–18; Ex. E, Foy Decl. ¶¶ 14–15; Ex. H, Taylor-Miesle Decl. ¶¶ 6–14; Ex. J, Reardon Decl. ¶¶ 16, 19; Ex. K, Ross Decl. ¶¶ 3, 5, 10–34; Ex. L, Molyneaux Decl. ¶¶ 13, 15–17; Ex. M, Cooley Decl. ¶¶ 12–13; Ex. N, Fort Decl. ¶¶ 5, 11–13; Ex. O, Marsh-Robinson Decl. ¶¶ 5, 10–11; Ex. P, Coplon Decl. ¶ 4; Ex. R, Pannone Decl. ¶¶ 5–16.

¹¹ *See, e.g.,* Ex. C, Minott Decl. ¶ 21; Ex. H, Taylor-Miesle Decl. ¶ 16.

conditions such as asthma, other respiratory ailments, and heart problems, which are aggravated by these pollutants.¹² *See* 80 Fed. Reg. at 64,914. The Organizations also have members in low-income communities and communities of color, which are disproportionately affected by environmental harms including air pollution and climate change.¹³ *See* 80 Fed. Reg. at 64,670, 64,914. This Court has held repeatedly that environmental organizations have standing to sue to protect their members from pollution that threatens and concerns those members. *See, e.g., Natural Res. Def. Council v. EPA*, 755 F.3d 1010, 1016–17 (D.C. Cir. 2014); *Ass’n of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667, 672–73 (D.C. Cir. 2013).

Because the Organizations’ and their members’ “injur[ies] suffice[] for standing purposes,” causation and redressability “rationally follow[].” *Crossroads Grassroots Policy Strategies v. FEC*, 788 F.3d 312, 316 (D.C. Cir. 2015) (movant had standing to intervene and defend challenge to an agency decision favorable to its interests, because invalidation of that decision would expose it to harm). The injuries described above are “directly traceable,” *see id.*, to the

¹² *See, e.g.,* Ex. A, Wimmer Decl. ¶¶ 7–8; Ex. C, Minott Decl. ¶¶ 13, 19–22; Ex. L, Molyneaux Decl. ¶ 13, 16–17; Ex. J, Reardon Decl. ¶¶ 6–14, 17–18; Ex. M, Cooley Decl. ¶ 13; Ex. N, Fort Decl. ¶ 11; Ex. O, Marsh-Robinson Decl. ¶ 10; Ex. Q, Leonard Decl. ¶¶ 10–11, 13–15; Ex. R, Pannone Decl. ¶ 6.

¹³ *See, e.g.,* Ex. Q, Leonard Decl. ¶¶ 2–3, 7–9, 15.

outcome of this proceeding and redressable by a decision of this Court denying Petitioners' requested relief.

CONCLUSION

For the reasons above, the Court should grant the Organizations leave to intervene in support of respondent EPA.

Respectfully submitted,

/s/ Benjamin Longstreth (by consent)

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Counsel for Sierra Club

Dated: October 27, 2015

CERTIFICATE OF SERVICE

I certify that on October 27, 2015, the foregoing UNOPPOSED MOTION OF AMERICAN LUNG ASSOCIATION, CENTER FOR BIOLOGICAL DIVERSITY, CLEAN AIR COUNCIL, CLEAN WISCONSIN, CONSERVATION LAW FOUNDATION, ENVIRONMENTAL DEFENSE FUND, NATURAL RESOURCES DEFENSE COUNCIL, OHIO ENVIRONMENTAL COUNCIL, AND SIERRA CLUB FOR LEAVE TO INTERVENE IN SUPPORT OF RESPONDENT, associated declarations, and RULE 26.1 DISCLOSURE STATEMENT were served on counsel of record for EPA and Petitioners in Case No. 15-1363 and consolidated cases using the Court's ECF system.

/s/ Benjamin Longstreth

Dated: October 27, 2015

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RULE 26.1 DISCLOSURE STATEMENT

Pursuant to Federal Rule of Appellate Procedure and D.C. Circuit Rule 26.1, movant-intervenors American Lung Association, Center for Biological Diversity, Clean Air Council, Clean Wisconsin, Conservation Law Foundation, Environmental Defense Fund, Natural Resources Defense Council, Ohio Environmental Council, and Sierra Club state that they are not-for-profit non-governmental organizations whose missions include protection of public health and the environment and conservation of natural resources. None of the organizations has any outstanding shares or debt securities in the hands of the public, or any parent, subsidiary, or affiliate that has issued shares or debt securities to the public.

Respectfully submitted,

/s/ Benjamin Longstreth (by consent)

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Dated: October 27, 2015

Exhibit A

Declaration of Harold Wimmer

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

Cook County)
)
Illinois)

DECLARATION OF HAROLD WIMMER

I, Harold Wimmer, declare and state as follows:

1. I am the National President and Chief Executive Officer for the American Lung Association (“the ALA”). I am responsible for the overall management and operation of the organization. In that capacity, I am required to be familiar with the organization’s structure, function, purpose, and membership.

2. The ALA is incorporated in Maine with headquarters in Chicago, Illinois. It is recognized as a not-for-profit corporation under section 501(c)(3) of the United States Internal Revenue Code. The ALA has chartered organizations (akin to state chapters) and members and supporters in all fifty states and the District of Columbia. The ALA’s members and supporters include healthcare professionals, researchers, and educators who share a commitment to reducing the burden of lung disease on patients and their families.

3. The ALA has a vision of a world free of lung disease. Its mission statement is “to save lives by improving lung health and preventing lung disease.”

Recognizing that climate change has multiple, profound risks that endanger the health and lives of millions of Americans, the ALA has supported strong steps to reduce climate change for years. The ALA is committed to improving lung health and preventing lung disease through research, advocacy and education, including informing the public about health threats from climate change.

4. The purpose of my declaration is to provide the ALA's support for the U.S. Environmental Protection Agency's ("EPA") final rule at issue in this litigation: "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," commonly known as the "Clean Power Plan." In 2014, the ALA submitted comments in support of EPA's proposed Clean Power Plan. The ALA's comments stressed that the Clean Power Plan has lifesaving potential for people with chronic and acute respiratory diseases and others that the ALA serves.

5. Our support for the Clean Power Plan has its basis in research that shows that human activities are emitting billions of tons of carbon dioxide and other greenhouse gases each year. Over time, these emissions accumulate in the atmosphere, trapping heat and changing climate. Research shows that these changes lead to conditions that increase the risk of harm to human health, especially for people with lung disease. Those dangerous conditions include, but are not limited to, higher concentrations of ground level ozone from warmer

temperatures and high levels of widespread particulate matter from wildfires, both of which increase the risk of premature death, among other serious harms. These changes are affecting ALA members and supporters across the country.

6. The Clean Power Plan will reduce carbon dioxide emissions from power plants, the nation's largest industrial source of carbon dioxide pollution. Reductions in carbon dioxide emissions from power plants will contribute to mitigating the effects of climate change, including warmer temperatures that lead to the formation of ground level ozone, and heat waves and drought that lead to wildfires. The Clean Power Plan will not only reduce emissions of carbon dioxide from power plants, but also will cause reduced emissions of other harmful air pollutants, including nitrogen oxides, sulfur dioxide, and particulate matter.

7. The ALA serves people who are more vulnerable to the effects of climate change than others. For instance, people who suffer from asthma face increased risk of asthma attacks, hospitalizations, and missed work because of elevated concentrations of ozone and particulate matter.

8. The ALA has members and supporters throughout the country who suffer from or treat patients with asthma, chronic obstructive pulmonary disease ("COPD"), and other lung diseases. Approximately 25.9 million Americans have asthma as of 2011, including 7.1 million children under age 18. Approximately 12.7 million adults in the United States have been diagnosed with COPD. Research

warns that climate change is expected to have significant adverse health effects on people with asthma and COPD, especially from increased particulate matter and higher ozone. These effects include increased risk of asthma attacks, increased risk of hospitalization, and even premature death.

9. The ALA has members and supporters throughout the country who are over age 65, who have children under age 18, or who exercise or work outdoors. Research warns that climate change is expected to increase the risk of harm to these individuals who are at ages or are regularly engaged in activities where increased particulate matter, ozone or other pollutants have been documented as threats to their health.

10. The ALA members and supporters across the country have a strong interest in seeing the Clean Power Plan implemented. By making our air cleaner and safer to breathe, the Clean Power Plan will help protect the health of those the

ALA serves. The ALA strongly supports EPA's promulgation of the Clean Power Plan.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 1st day of October, 2015.

A handwritten signature in black ink that reads "Harold Wimmer". The signature is written in a cursive, flowing style.

Harold Wimmer
55 W. Wacker Dr., Suite 1150
Chicago, IL 60601

Exhibit B

Declaration of Kassia R. Siegel

DECLARATION OF KASSIA R. SIEGEL

I, Kassia R. Siegel, declare as follows:

1. I am the director of the Center for Biological Diversity’s Climate Law Institute. I have personal knowledge of the facts and statements contained herein and, if called as a witness, could and would competently testify to them.

2. The Center for Biological Diversity (the “Center”) is a non-profit corporation with offices in California and throughout the United States. The Center works to protect wild places and their inhabitants. The Center believes that the health and vigor of human societies and the integrity and wildness of the natural environment are closely linked. Combining conservation biology with litigation, policy advocacy, and strategic vision, the Center is working to secure a future for animals and plants hovering on the brink of extinction, for the wilderness they need to survive, and by extension, for the spiritual welfare of generations to come. In my role as director of the Center’s Climate Law Institute, I oversee all aspects of the Center’s climate and air quality work.

3. The Center works on behalf of its members, who rely upon the organization to advocate for their interests in front of state, local and federal entities, including EPA and the courts. The Center has more than 50,000 members.

4. The Center has developed several different practice areas and programs, including the Climate Law Institute, an internal institution with the primary mission of curbing global warming and other air pollution, and sharply limiting its damaging effects on endangered species, their habitats, and human health for all of us who depend on clean air, a safe climate, and a healthy web of life.

5. Global warming represents the most significant and pervasive threat to biodiversity worldwide, affecting both terrestrial and marine species from the tropics to the poles. Absent major reductions in greenhouse gas emissions, by the middle of this century upwards of 35 percent of the earth’s species could be extinct or committed to extinction as a result of global warming. With even moderate warming scenarios producing sufficient sea level rise to largely inundate otherwise “protected” areas like the Everglades and the Northwest Hawaiian Islands, global

1 warming threatens to render many other biodiversity conservation efforts either futile or irrelevant.
2 To prevent extinctions from occurring at levels unprecedented in the last 65 million years,
3 emissions of carbon dioxide and other greenhouse gases must be reduced deeply and rapidly.
4 Given the lag time in the climate system and the likelihood that positive feedback loops will
5 accelerate global warming, leading scientists have warned that we have only a few decades, at
6 most, to significantly reduce greenhouse gas emissions if we are to avoid catastrophic effects.
7 Deep and immediate greenhouse gas reductions are required if we are to save many species which
8 the Center is currently working to protect, including but not limited to the polar bear, Pacific
9 walrus, ribbon seal, Kittlitz's murrelet, American pika, Emperor penguin, and many species of
10 corals. Leading scientists have also stated that levels of carbon dioxide, the most important
11 greenhouse gas, must be reduced to no more than 350 parts per million (ppm) and likely less than
12 that, "to preserve a planet similar to that on which civilization developed and to which life on
13 Earth is adapted" (J. Hansen et al., *Target Atmospheric CO₂: Where Should Humanity Aim?*, 2
14 *Open Atmospheric Sci. J.* 217, 218 (2008).

15 6. One of the Climate Law Institute's top priorities is the full and immediate use of
16 the Clean Air Act to rein in greenhouse gases and other pollutants. The Clean Air Act is our
17 strongest and best existing tool for doing so, and we have long worked to enforce the Clean Air
18 Act's mandates to accomplish this goal. For example, the Center was a Plaintiff in *Massachusetts*
19 *vs. EPA*, which resulted in the landmark Supreme Court decision finding that greenhouse gases are
20 pollutants under the Clean Air Act, which ultimately led to EPA's first-ever rulemaking to reduce
21 greenhouse gas emissions from passenger cars and light trucks under section 202. That rulemaking
22 is comprised of the *Endangerment and Cause or Contribute Findings for Greenhouse Gases*
23 *Under Section 202(a) of the Clean Air Act*, 74 Fed. Reg. 66,496 (Dec. 15, 2009) ("Endangerment
24 Finding"), and the *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate*
25 *Average Fuel Economy Standards*, 75 Fed. Reg. 25,324, 25,397 (May 7, 2010), updated twice
26 since then. The Center also submitted or is submitting comments to each of those successor light
27 duty vehicle rules, as well as to the first medium duty/heavy duty vehicle rule and its proposed
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1 successor, the *Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-*
2 *Duty Engines and Vehicles, Phase 2; Proposed Rule*, 80 Fed. Reg. 40138 (July 13, 2015).

3 7. EPA's rulemaking to reduce greenhouse gases from passenger vehicles preceded
4 significant additional regulatory activity for greenhouse gases under other Clean Air Act
5 programs, including rulemakings that enforce the Clean Air Act's PSD permitting program and
6 best available control technology ("BACT") requirements for greenhouse gases emitted by
7 stationary sources and implementation of New Source Performance Standards for various
8 industrial facilities. *E.g.*, *Prevention of Significant Deterioration and Title V Greenhouse Gas*
9 *Tailoring Rule*, 75 Fed. Reg. 31,514 (2010). EPA's rulemakings were upheld in 2012 in *Coalition*
10 *for Responsible Regulation v. EPA* (D.C. Cir. 2012) 684 F.3d 102, a matter in which the Center
11 submitted an amicus brief. The Supreme Court affirmed *Coalition for Responsible Regulation* in
12 part, upholding EPA's authority to require BACT for greenhouse gas emissions from facilities that
13 must obtain PSD permits due to their potential to emit non-greenhouse gas pollutants. *See Util.*
14 *Air Reg. Group v. EPA*, 573 U.S. ___, 134 S. Ct. 2427, 2449 (2014).

15 8. We commented on EPA's proposed rulemakings to set standards and guidelines for
16 greenhouse gas emissions from new, modified/reconstructed, and existing power plants under
17 Clean Air Act sections 100(b) and 111(d), the rulemakings here at issue. (Center comments, EPA-
18 EPA-HQ-OAR-2011-0660-10171 [June 22, 2012]; HQ-OAR-2013-0495-10119 [May 9, 2014];
19 EPA-HQ-OAR-2013-0602-25292 [Dec. 1, 2014].) We have also been involved in numerous other
20 Clean Air Act administrative proceedings and legal actions seeking to enforce the Act's provisions
21 for greenhouse gases. For example, we successfully challenged EPA's exemption of "biogenic"
22 CO₂ – that is, CO₂ emitted from burning wood and other "biomass" materials – from the Clean Air
23 Act's PSD and Title V permitting programs. *Center for Biological Diversity v. EPA*, 722 F.3d 401
24 (D.C. Cir. 2013). We have participated in numerous other legal actions, including but not limited
25 to *Sierra Club v. EPA*, 762 F.3d 971 (9th Cir. 2014) (challenging EPA's decision to exempt the
26 Avenal power plant from Clean Air Act requirements applicable at the time of permit issuance),
27 *Resisting Environmental Destruction on Indigenous Lands v. EPA*, 716 F.3d 1155 (9th Cir. 2013)
28 (challenging errors in air permits that would allow Shell to conduct exploratory drilling in the

1 Arctic ocean), and *Center for Biological Diversity v. EPA* (D.D.C. 2011) 794 F. Supp. 2d 151
2 (seeking to compel a response from EPA on petitions to issue greenhouse gas standards for ships,
3 aircraft, and offroad engines). In September, 2010, we petitioned EPA to issue greenhouse gas
4 standards for locomotive engines pursuant to Clean Air Act section 213(a)(5). *Petition for*
5 *Rulemaking Under the Clean Air Act to Reduce Greenhouse Gas and Black Carbon Emissions*
6 *from Locomotives* (Sept. 21, 2010). In December 2009, we petitioned EPA to designate
7 greenhouse gases as criteria air pollutants under Clean Air Act section 108 and to issue National
8 Ambient Air Quality Standards (NAAQS) sufficient to protect public health and welfare. *Petition*
9 *to Establish National Pollution Limits for Greenhouse Gases Pursuant to the Clean Air Act* (Dec.
10 2, 2009). In 2007, we petitioned EPA to issue greenhouse gas standards for aircraft under Clean
11 Air Act section 231; we obtained a court order mandating EPA to make an endangerment finding
12 for aircraft from the district court for the District of Columbia in 2011, and as a result, EPA
13 recently released a proposed endangerment finding and an advanced notice of proposed
14 rulemaking for aircraft greenhouse gases, *Proposed Finding That Greenhouse Gas Emissions from*
15 *Aircraft Cause or Contribute to Air Pollution That May Reasonably Be Anticipated To Endanger*
16 *Public Health and Welfare and Advance Notice of Proposed Rulemaking, Proposed Rule*, 80 Fed.
17 Reg. 37758 (July 1, 2015). Again, these examples are illustrative of our advocacy in this area, not
18 exhaustive.

19 9. In addition to our work on greenhouse pollution, the Center has worked through the
20 Clean Air Act to address other pollutants that adversely impact biodiversity and human health.
21 For example, we filed suit against EPA for failing to review and revise the air quality criteria for
22 oxides of nitrogen and sulfur oxides and the NAAQS for nitrogen dioxide and sulfur dioxide. This
23 case resulted in a court-ordered settlement agreement setting forth deadlines for EPA to update
24 these critically important standards. On February 9, 2010, EPA issued updated primary NAAQS
25 for nitrogen dioxide. Primary National Ambient Air Quality Standards for Nitrogen Dioxide; Final
26 Rule, 75 Fed. Reg. 6474 (February 9, 2010). On June 22, 2010, EPA issued updated primary
27 NAAQS for sulfur dioxide. Primary National Ambient Air Quality Standard for Sulfur Dioxide;
28 Final Rule, 75 Fed. Reg. 35520 (June 22, 2010). On April 3, 2012, EPA decided *not* to revise the

1 40-year-old secondary NAAQS for sulfur and nitrogen oxides, despite acknowledging ongoing
2 harm to terrestrial and aquatic ecosystems from acid rain and other depositional pollution.
3 Secondary National Ambient Air Quality Standards for Oxides of Nitrogen and Sulfur, 77 Fed.
4 Reg. 20218 (April 3, 2012). We challenged the latter decision as contrary to the Clean Air Act.
5 See *Ctr. for Biological Diversity v. EPA*, 749 F.3d 1079 (D.C. Cir. 2014). We also filed suit in
6 2010 against EPA for failing to meet numerous deadlines for limiting dangerous particle pollution,
7 including deadlines for: (a) determining whether areas in five western states are complying with
8 existing air pollution standards, and (b) ensuring that states are implementing legally required
9 plans to meet the standards. *Ctr. for Biological Diversity v. Jackson*, N.D. Cal. No. CV 10-1846
10 MMC (filed April 29, 2010). This case resulted in another settlement establishing deadlines for
11 EPA to carry out these important duties.

12 10. We here seek intervention to support EPA's rulemakings under Clean Air Act
13 sections 111(b) and 111(d) to set greenhouse gas emission reduction standards and issue
14 guidelines for the nation's new, modified or reconstructed, and existing power plants. Because
15 power plant carbon emissions constitute some 40% of the nation's greenhouse gas emissions and
16 are the largest single source of such emissions, it is crucial that they be sharply reduced, and
17 eventually eliminated, as quickly as possible. Power plant greenhouse gas emissions harm the
18 health, welfare, economic, and aesthetic interests of our members in numerous ways. They are a
19 major contributor to climate change, which is already driving many animals and plants to
20 extinction, increasing temperatures, and causing droughts, flooding and sea level rise, and
21 affecting the livelihoods and property of our members. Our members are increasingly less able to,
22 and sometimes altogether prevented from, viewing and enjoying wildlife threatened by climate
23 change and from recreating in wilderness areas undergoing rapid climate change. They are
24 deprived of the aesthetic enjoyment that stems from such activities, and experience worry, upset
25 and other emotional injury because of it. Some of our members suffer from pulmonary diseases
26 such as asthma from the smog- and soot-forming co-pollutants emitted by power plants, such as
27 sulfur dioxide, nitrogen oxides, and fine particulate matter.


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11. The Center’s members rely on the organization to support EPA’s efforts to reduce carbon and other harmful pollution from power plants, to enforce the provisions of the Clean Air Act, and to compel power plants to operate lawfully.

12. Any decision by this Court that would delay or impede EPA’s ability to enforce Clean Air Act sections 111(b) and 111(d) to reduce carbon and other harmful pollution from power plants would harm the interests of the Center and its members. These interests include the procedural interests in enforcing all aspects of the rulemakings that reduce carbon pollution, about which our members have commented extensively.

13. If this Court upholds EPA’s rulemakings to reduce carbon and other harmful pollution from power plants, both the substantive and the procedural harm that would come from impeding or delaying those pollution reductions would be addressed and prevented.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct. Executed on September 30, 2015, at Joshua Tree, California.



Kassia R. Siegel

Exhibit C

Declaration of Joseph O. Minott

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

Philadelphia County)
)
Commonwealth of Pennsylvania)

DECLARATION OF JOSEPH O. MINOTT

I, Joseph O. Minott, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) and suffer no legal incapacity. I submit this declaration in support of the Motion to Intervene of Clean Air Council (“CAC”) in the above-referenced matter.

2. I am currently the Executive Director of CAC and have served in this position for twenty-nine (29) years. Before serving as Executive Director I was a staff attorney at CAC for four years. My position at CAC requires me to be responsible for achieving CAC’s goals and mission, and to be familiar with CAC’s structure, activities and membership.

3. The Delaware Valley Citizen’s Council for Clean Air, now known as Clean Air Council, was established in 1967. CAC is a 501(c)(3) non-profit, membership organization incorporated in Pennsylvania and headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania 19103.

4. CAC currently has nearly 9,000 members, in the Mid-Atlantic regions, most of whom live in the Philadelphia, Pennsylvania area.

5. CAC works to achieve its mission, to protect everyone's right to breathe clean air, through advocacy and legal action. Among CAC's programmatic activities is its "Global Warming Program." CAC's work on this issue began in 2001 when it convened the Mid-Atlantic States Conference on Climate Change. Specifically, CAC works for strong state and federal policies to address climate change pollution, including defending the U.S. Environmental Protection Agency's ("EPA's") authority to regulate greenhouse gas emissions under the Clean Air Act. CAC's climate change work includes a focus on steps to ameliorate the public health damages due to a warmer climate and rising sea levels.

6. My position at CAC requires me to be up-to-date and knowledgeable about current and future threats to the environment in Pennsylvania, and more broadly, to the Mid-Atlantic region in which Pennsylvania is centrally located.

7. Among the most important current and future threats to Pennsylvania's natural and built environment is the ongoing damage due to a changing climate in the region. I am aware of the science documenting the existence of climate change, its causes, and its potential adverse impacts on public health and welfare and the environment – specifically to the natural and built environment in the Mid-Atlantic region. I understand that human activities, especially the burning of fossil fuels to generate electric power have resulted in elevated levels of carbon dioxide pollution. Carbon dioxide and other greenhouse gases trap heat in the Earth's atmosphere that would otherwise escape, and that "greenhouse effect" is now causing a variety of climactic and environmental changes, including, but not limited to, increased temperatures, sea level rise, and increases in the frequency and intensity of extreme weather events, including increased precipitation and heavy downpours in northern United States.

8. I understand that 2014 had the highest average temperatures of any year in recorded U.S. history, and that this is part of a pattern of increased

warming globally and in my region. Between 1895 and 2011, average annual temperatures in Pennsylvania, indeed the entire Northeast U.S., increased by almost two degrees Fahrenheit and precipitation increased by more than ten percent.

9. Additionally, I know that global sea levels are projected to rise one to four feet by 2100; a rise of two feet, without any changes in storms, would more than triple the frequency of coastal flooding in the Mid-Atlantic, including along the Schuylkill River, the largest tributary of the Delaware River, which enters the Atlantic Ocean in southern New Jersey. The Schuylkill River in Philadelphia is tidal, with a six-foot tidal range, meaning that water levels are six feet higher at high tide than at low tide.

10. I know also that Philadelphia, as a modern large city, has significantly more impermeable surfaces, such as concrete and asphalt and less vegetation than surrounding areas, and therefore suffers from a “heat island” effect, whereby average temperatures are several degrees warmer than in the surrounding regions. The “heat island” effect poses a direct health risk because extreme heat events can cause health problems including heat exhaustion, heat stroke, and even death, particularly among at-risk populations such as children, the elderly, or those with low socio-economic factors. The “heat island” effect also contributes to greater concentrations of ground-level ozone,

which forms when warm polluted air mixes with sunlight. Hotter areas experience higher localized concentrations of ground-level ozone than cooler areas. In turn, ground-level ozone combines with particulate matter to create smog. Smog is a particular problem in urban areas because of the increased presence of vehicles and industry, as well as the “heat island” effect.

11. Ozone smog irritates the respiratory system, reduces lung function, inflames and damages cells that line your lungs, makes your lungs more susceptible to infections, aggravates asthma, aggravates chronic lung disease, and can cause permanent lung damage. Increasing temperatures associated with climate change will exacerbate ground-level ozone and ozone smog and associated health problems. CAC’s members residing in the Philadelphia region are experiencing the effects of summer smog now and this will continue and intensify if greenhouse gas accumulations in the atmosphere remain unchecked and average temperatures continue to rise.

12. I also know that climate change results in more frost-free days and can contribute to shifts in flowering time and pollen initiation from allergenic plants. Increases in carbon dioxide itself can elevate plant-based allergens, resulting in longer and more intense allergy seasons.

13. I am familiar with the final rule at issue in this litigation: “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility

Generating Units,” (“Guidelines”). On December 1, 2014, I submitted comments on the proposed Guidelines on behalf of CAC. In my opinion, and based on my experience at CAC and with this rulemaking, the final Guidelines are a significant step forward in reducing greenhouse gas emissions in the United States and confirm the country’s international leadership in the global effort to address climate change.

14. The Guidelines will require states, including Pennsylvania, to impose carbon pollution emissions standards requiring reduced carbon dioxide emissions from the fleet of existing fossil fuel-fired power plants. The Guidelines will result in thirty-two (32) percent less carbon pollution from power plants than in 2005, or 870 million short tons. The Guidelines will also reduce exposure to particulate matter and ozone because they will have the incidental effect of reducing fossil fuel-fired power plant emissions of precursor pollutants.

15. Fossil fuel-fired power plants are by far the largest source of U.S. carbon dioxide emissions, making up nearly forty (40) percent of U.S. anthropogenic carbon dioxide and thirty-one (31) percent of U.S. total anthropogenic greenhouse gas emissions. The power plants in Pennsylvania covered by the final Guidelines emitted more carbon dioxide in 2012 than all but those in two other states. Under the Guidelines Pennsylvania’s existing

power plants must reduce their carbon emissions by nearly twenty-seven (27) million short tons by 2030.

16. In addition to my professional role at CAC, I also have been a CAC member for over twenty (20) years. I am sixty-one (61) years old. I own the property at which I live, located at 2301 Cherry Street, 4J, Philadelphia, Pennsylvania 19103, in Philadelphia County. I have been a resident of Philadelphia or its suburbs for forty-three (43) years.

17. My property is located less than one block from the Schuylkill River and is in a high-risk flood area according to the U.S. Federal Emergency Management Agency. I am aware that increased global temperatures cause increased flooding on tidal rivers like the Schuylkill, due to a combination of sea level rise, storm surge, and extreme precipitation events. Because my property is low-lying and within close proximity to a major river, it is vulnerable to damage from such flooding.

18. Indeed, it is my personal impression that strong storms and flooding events on the Schuylkill have increased in recent years. When my wife and I purchased our condominium four years ago, we thought it would be a beautiful home overlooking the river. Now, we are concerned about our investment because twice in the last two years the river came up over its banks and flooded the basement, garage and elevator shafts of the condominium

complex, rendering them inaccessible. I am concerned that climate change will increase these flooding incidents and undermine our comfort and investment in our home.

19. I suffer from a chronic medical condition called sarcoidosis, which causes shortness of breath, wheezing, and chest pain. The symptoms of sarcoidosis are aggravated by ground-level ozone and ozone smog. I am therefore directly impacted by climate change because increased temperatures lead to more frequent bad ozone days which exacerbate my medical condition.

20. Further, I do not own a car, so I walk around Philadelphia on a daily basis. I also enjoy running, sitting outdoors, and spending time on the patio and roof of my apartment building. More frequent and intense bad ozone days will make it harder for me to breathe when I attempt to walk and exercise outdoors, and will force me to curtail these activities. More frequent and intense bad ozone days are already occurring in Philadelphia and likely to increase if climate change-related temperature increases remain unchecked.

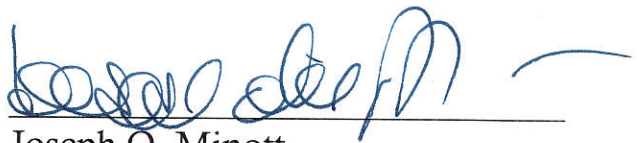
21. I also suffer from seasonal allergies in the spring, due to increased pollen in the air at that time of year. My symptoms include runny eyes, stuffy nose, headache and a “spacey” feeling. Among the effects of climate change in the Mid-Atlantic region is a lengthening of the allergy season, which already is causing me to suffer from these symptoms more often.

22. I have children and two small grandchildren; one newborn and one who is almost three years old. They visit me in Philadelphia often and are an important reason why I am so concerned about the issue of climate change. I worry about how the changing climate will impact their futures and believe we must do everything we can to protect them from its effects.

23. The Guidelines at issue in the above-referenced matter, along with the “Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units,” finalized on the same day, will be a significant step toward addressing climate change and its effect on rising waters, increasing bad ozone, allergens, and our children’s future planet. I believe the Guidelines will also make the air that I, my children and my grandchildren breathe cleaner and safer. The Clean Air Council seeks to intervene on EPA’s behalf to defend the Guidelines. I support EPA’s promulgation of the Guidelines and I support CAC’s efforts to intervene on EPA’s behalf.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 21 day of October, 2015.



Joseph O. Minott
2301 Cherry Street, 4J
Philadelphia, PA 19103

Exhibit D

Declaration of Keith A. Reopelle

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

Dane County)
)
State of Wisconsin)

DECLARATION OF KEITH A. REOPELLE

I, Keith A. Reopelle, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) and suffer no legal incapacity. I submit this declaration in support of Clean Wisconsin’s Motion to Intervene in Support of Respondents, in the above-referenced matter.

2. I am the Senior Policy Director for Clean Wisconsin, where I have served in a variety of positions, including as Clean Wisconsin’s Executive Director, for 30 years. In my current position I lead all of the organization’s programs related to climate and energy policies. Due to my current position and my previous experience, I am knowledgeable about Clean Wisconsin’s mission, and about how energy policy and climate change impacts the state of Wisconsin, including impacts to public health, natural resources and the built environment.

3. Clean Wisconsin, founded as Wisconsin’s Environmental Decade, was established in 1970. Clean Wisconsin is a 501(c)(3) non-profit, membership

organization incorporated in Wisconsin and headquartered at 634 West Main Street, Suite 300, Madison, Wisconsin 53703.

4. Clean Wisconsin currently has 6,000 members in the Midwest region most of whom live in the state of Wisconsin.

5. Clean Wisconsin works to achieve its mission through education, advocacy, and legal action to protect Wisconsin's right to breathe clean air and drink clean water. Among Clean Wisconsin's current programmatic activities is its Global Warming Program, and programmatic work to protect clean air and promote clean energy has been a continual focus of the organization since its beginning in 1970. Specifically, Clean Wisconsin is helping to ensure that Wisconsin's economy stays strong and is powered by clean, safe, reliable energy as Clean Wisconsin works for strong state and federal policies to address climate change pollution, including defending the U.S. Environmental Protection Agency's (EPA's) authority to regulate greenhouse gas emissions under the Clean Air Act.

6. I understand that this lawsuit challenges an EPA final rule entitled: "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electricity Utility Generating Units," commonly known as the Clean Power Plan. Clean Wisconsin filed comments on the proposed Guidelines with EPA just prior to the December 1, 2014 deadline for those comments last year. Clean Wisconsin has also submitted two additional sets of comments to EPA during the comment period

on the proposal, jointly with other non-governmental organizations (NGOs) and with several coal-based utilities from across the Midwest including multiple Wisconsin utilities.

7. Clean Wisconsin began its collaborative outreach with Midwest utilities on the Clean Power Plan rules in 2011 in an effort to better understand their concerns, needs, challenges and opportunities in relation to this regulation. We submitted joint comments with utilities prior to the proposed rule in June of 2014, and a second set of joint comments prior to the comment deadline on the proposed rule in December of 2014. I am very impressed and happy to see that EPA took our comments into full consideration and made multiple changes to the rule to address the common concerns of the NGO community and many of the coal-based utilities in the Midwest. I also am very impressed by the reaction to the proposed and final rule by utilities in Wisconsin. Throughout this rulemaking process their response has been one of rolling up their sleeves and doing the collaborative work to find the best solutions, not a “just say no” response.

8. I understand that human activities, and the burning of fossil fuels to generate electricity in particular, have resulted in elevated levels of carbon dioxide pollution in the atmosphere. I am well aware that carbon dioxide and other greenhouse gases trap heat in the Earth’s atmosphere that would otherwise escape, and that “greenhouse effect” is now causing a variety of climatic and

environmental changes, including, but not limited to, increased temperatures, sea level rise, longer and more severe droughts, and increases in the frequency and intensity of extreme weather events including increased intensity in precipitation events. I am also aware that the increase in average temperatures tends to be higher in the interior of large continents such as North America, and that has been the case in the Midwestern portion of the United States. I understand that 2014 had the highest average temperatures of any year in recorded U.S. history, and that this is part of a pattern of increased warming globally and in the Midwest.

9. I am also aware that fossil fuel-fired electric generating power plants are the largest sources of carbon pollution emission in the United States and account for more than 40 percent of all the carbon pollution emissions in the state of Wisconsin.

10. I am aware that rigorous analysis shows that under the expert International Panel on Climate Change's (IPCC's) scenario A1B (that is, the model showing more reductions in greenhouse gas emissions than is the case under the status quo in the United States), there is a 90 percent likelihood that the annual mean temperatures in Wisconsin will rise to somewhere between 3 and 9 degrees Fahrenheit above 1980 levels by the year 2055. I am aware that this analysis also shows that there is a 90 percent likelihood that the annual mean temperature in Wisconsin will rise to somewhere between 5 and 13 degrees Fahrenheit above

1980 levels by the year 2090, and that the number of days that the daytime high will exceed 90 degrees Fahrenheit is likely to increase by 20 (over 1980 levels) by 2055. I am also aware that the number of rainfall events in excess of 2 inches is likely to increase by 6 days per decade by the year 2055.

11. I am further aware that the impacts of these and other changes in the climate are already being experienced in Wisconsin as a result of human-induced global warming due to carbon dioxide and other greenhouse gas emissions. Climate change warming patterns will produce further serious harmful impacts to Wisconsin's natural environment, built environment, and public health over the coming centuries. I know that in Wisconsin droughts are already more frequent and will become more severe and longer in duration; that rain and storm events, while occurring less frequently, are now and will become more intense and severe. I know that warming is now having, and will continue to have the greatest impact during the winter months, resulting in less consistent snow cover and more icy conditions. I know that in Wisconsin cities, which have more paved and built-up surfaces and less vegetation than in rural areas, a heat island effect is now causing and will lead to even more severe hot-weather days.

12. I know that insect-borne diseases such as Lyme disease are already spreading into regions of the country (including areas in Wisconsin) where they previously had not occurred due to warming winters that no longer kill off the

insect hosts; and that Lyme disease will continue to spread, and the season when ticks are able to transmit the disease to humans will continue to lengthen, unless something is done to reduce climactic warming. I know that the incidence and intensity of ozone smog is already increasing and will continue to increase, and ozone smog seasons will lengthen in Wisconsin, with increased temperatures that drive the chemical reaction that forms ground-level ozone. I know that streams and rivers in Wisconsin already are warming, and this will greatly reduce the range and incidence of native cold-water fisheries in Wisconsin, especially brook trout.

13. I know that higher summer temperatures are already causing stress to dairy cows and increase the cost of producing quality milk, which is vital to the economic health of Wisconsin's dairy industry, one of the country's most important sources of milk and other dairy products. I know that because rainfall events are both less frequent but more intense when they do occur, both droughts and flooding are increasing, and this situation is already adding risk and expense to many types of Wisconsin crop farming including grains, fruits, vegetables, herbs, and livestock feed. I know that shorter snow-cover durations resulting from increases in winter thaws are now and will continue to have major impacts on the tourism industry in Wisconsin and increase costs for Wisconsin's timber industry.

14. I know that it is critical to adapt to these changes and that adaptation will come at a great cost to Wisconsin's economy; moreover it is also critical to

take steps now to reduce carbon dioxide and other air pollution that causes climate change in order to mitigate those costs. I know that the combined costs of the impacts of climate change and the costs of adapting to minimize those impacts, will be far higher than the cost of mitigating the impacts, particularly from the largest sources such as electric generating units.

15. In addition to my professional role with Clean Wisconsin I have also been a dues paying member of Clean Wisconsin for the past 33 years. I am 57 years old, and my wife and I own the property where we live at 579 Fisch Road, Marshall Wisconsin. I have been a resident of the state of Wisconsin (and a Green Bay Packer fan) all of my life. My wife and I have two daughters.

16. I am and have been an avid fisherman all of my life. I fish extensively in Wisconsin for everything from panfish to muskies, including bass, walleyes, brook, rainbow and brown trout, northern pike, and salmon. I spend many weekends every year in Vilas and Oneida Counties, fishing for walleyes and muskies. I spend what, for me, is a lot of money in those counties buying tackle and bait and buying food in grocery stores and restaurants. I also fish for trout in southern and southwestern Wisconsin and I am familiar with studies that show that trout fishing in Southwest Wisconsin is a major part of that region's economy. Due to my professional work, I am aware that, unless we take significant steps to reduce current levels of carbon dioxide emissions, Wisconsin will lose the majority

of its brook trout habitat, and the habitat for rainbow and brown trout will be significantly diminished. This will be a great personal loss to me and will forfeit recreational opportunities for my daughters. Just as importantly, it will be a major economic and cultural blow to the state of Wisconsin.

17. I also spend a good deal of time ice fishing. I love ice fishing and I love being a part of the community of Wisconsinites that gathers on lakes in both southern and northern Wisconsin partaking in a cultural phenomenon that helps define Wisconsin's identity (not to mention taking home a very tasty meal!). I am aware from my professional work and my years as a fisherman that Lake Mendota in Madison, Wisconsin is one of the most studied lakes in the world and has one of the world's largest/longest set of ice-cover data, dating back to 1855. It is clear from that data that, unless we take steps to reduce greenhouse gas emissions and the resulting climate change, ice fishing in Wisconsin will become a thing of the past. I am already seeing this happen in my lifetime. In 2001, Lake Mendota in Madison, Wisconsin was covered by ice for just a total of three weeks, far less time than was the case in my childhood. Additionally, this causes unsafe conditions on the ice, particularly for those who are less aware of the warming situation than I am. And, between now and that day when ice fishing becomes a thing of the past and Wisconsin loses a major source of its winter economic activity (especially in

rural areas and the north), many unsafe ice conditions will continue to exist and lives will be lost.

18. My wife and I own 40 acres of land, of which we lease seven acres to grow corn and soybeans. We also own and maintain a small alpaca herd for fiber production. The impacts of climate change on our modest farming operation give me a better understanding how climate change is already impacting and will continue to impact farmers in Wisconsin. Farmers depend on predictable seasons and weather for their livelihood. The drought of 2012 had a negative impact on our farm and other farming operations across southern Wisconsin, including a reduced hay harvest and the resulting price spike in hay for livestock feed.

19. Our daughters both share our love for the outdoor recreational opportunities Wisconsin has to offer, and I am aware that their lives and their children's lives will be affected even more profoundly – in a negative way – than ours, by climate change impacts to Wisconsin. This fact, more than anything else, is my motivation for working to address climate change and mitigate its impacts on Wisconsin.

20. The Clean Power Plan is a significant step toward addressing climate change and its effect on Wisconsin's air quality, lakes, rivers, ground water, farms, businesses, public health, culture and heritage. I believe the Clean Power Plan will also make the air that I, my wife, my children, and my grandchildren breathe

cleaner and safer. Clean Wisconsin seeks to intervene on EPA's behalf to defend the rules. I support EPA's promulgation of the Clean Power Plan and the power plant new source carbon dioxide emissions performance standards also finalized by the Agency, and I support Clean Wisconsin's efforts to intervene on EPA's behalf.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this __ day of October, 2015:

A handwritten signature in black ink that reads "Keith Reopelle". The signature is written in a cursive style with a large initial 'K' and 'R'.

Keith A. Reopelle
579 Fisch Road
Marshall, WI 53559

Exhibit E

Declaration of Douglas I. Foy

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

Suffolk County)
)
Commonwealth of Massachusetts)

DECLARATION OF DOUGLAS I. FOY

I, Douglas I. Foy, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) and suffer no legal incapacity. I submit this declaration in support of the Motion to Intervene in Support of Respondents, of Conservation Law Foundation (“CLF”) in the above-referenced matter.

2. I currently serve on the CLF Board of Directors and have been a CLF member for thirty-seven years. I previously served as CLF’s President and Chief Executive Officer for twenty-five years. My long-standing roles at CLF have required me to be responsible for achieving the organization’s goals and mission, and to be familiar with CLF’s structure, activities, and membership.

3. Founded in 1966, CLF is a 501(c)(3) non-profit, member-supported corporation, organized and existing under the laws of Massachusetts, and headquartered at 62 Summer Street, Boston, Massachusetts 02110. CLF maintains offices in Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

CLF's membership consists of approximately 3,130 individuals, residing in thirty states and the District of Columbia, with the largest concentrations in the New England region.

4. CLF's mission is to work to solve the most significant environmental challenges facing New England. CLF relies on sound science and uses the law to create and advocate for innovative strategies to conserve natural resources, protect public health, and promote vital communities in our region. Working to promote effective climate change policies, including defending the U.S. Environmental Protection Agency's ("EPA's") authority to regulate greenhouse gas emissions under the Clean Air Act, constitutes a core element of CLF's mission.

5. My role at CLF requires me to be up-to-date and knowledgeable about current and future threats to the environment in Massachusetts, and more broadly, to the New England region.

6. Among the most important current and future threats to Massachusetts' natural and built environment is the ongoing damage due to a changing climate in the region. I am aware of the science documenting the existence of climate change, its causes, and its potential adverse impacts on public health and welfare and the environment – specifically to the natural and built environment in the New England region. I understand that human activities, especially burning fossil fuels to generate electric power, have resulted in elevated

levels of carbon dioxide pollution. Carbon dioxide and other greenhouse gases trap heat in the Earth's atmosphere that would otherwise escape, and that "greenhouse effect" is now causing a variety of climatic and environmental changes, including, but not limited to, increased temperatures, sea level rise, and increases in the frequency and intensity of extreme weather events, including increased precipitation and heavy downpours in the northern United States.

7. I understand that 2014 had the highest average temperatures of any year in recorded U.S. history, and that this is part of a pattern of increased warming globally and in my region. Between 1895 and 2011, average annual temperatures in Massachusetts, indeed the entire Northeast United States, increased by approximately two (2) degrees Fahrenheit, and precipitation increased by more than ten (10) percent. I understand that sea level rise is already documented in Massachusetts and that global sea levels are projected to rise one to four feet by 2100, substantially increasing coastal flooding risks in my region.

8. I know that urban areas, such as Boston, Massachusetts, have significantly more impermeable surfaces, including concrete and asphalt and less vegetation than surrounding areas, and therefore suffer from a "heat island" effect, whereby average temperatures are several degrees warmer than in the surrounding regions. The "heat island" effect poses a direct health risk because extreme heat events can cause health problems, including heat exhaustion, heat stroke, and even

death, particularly among at-risk populations, such as children, the elderly, or those with low socio-economic factors. This “heat island” effect also contributes to greater concentrations of ground-level ozone, which forms when warm polluted air mixes with sunlight. Hotter areas experience higher localized concentrations of ground-level ozone than cooler areas. In turn, ground-level ozone combines with particulate matter to create smog. Smog is a particular problem in urban areas because of the increased presence of vehicles and industry, as well as the “heat island” effect.

9. Ozone smog irritates the respiratory system, reduces lung function, inflames and damages cells that line lungs, makes lungs more susceptible to infections, aggravates asthma, aggravates chronic lung disease and can cause permanent lung damage. Increasing temperatures associated with climate change will exacerbate ground-level ozone and ozone smog and associated health problems. CLF’s members residing in urban areas are experiencing the effects of summer smog now, which will continue and intensify if greenhouse gas accumulations in the atmosphere remain unchecked and average temperatures continue to rise.

10. I know that climate change results in more frost-free days and can contribute to shifts in flowering time and pollen initiation from allergenic plants.

Increases in carbon dioxide itself can elevate plant-based allergens, resulting in longer, more intense allergy seasons.

11. I understand that this case challenges an EPA final rule, entitled: “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units,” (“Guidelines”). On December 1, 2014, CLF submitted comments on the proposed Guidelines. In my opinion, and based on my experience at CLF, the final Guidelines are a significant step forward in reducing greenhouse gas emissions in the United States and confirm the country’s international leadership in the global effort to address climate change.

12. The Guidelines will require states, including Massachusetts, to impose standards requiring reduced carbon dioxide emissions from the fleet of existing fossil fuel-fired power plants to meet a federal emissions target. Fossil fuel-fired power plants are by far the largest source of U.S. carbon dioxide emissions, making up nearly forty (40) percent of U.S. anthropogenic carbon dioxide and thirty-one (31) percent of U.S. total anthropogenic greenhouse gas emissions. The Guidelines will result in thirty-two (32) percent less carbon pollution from power plants than in 2005, or 870 million short tons. The Guidelines will also reduce exposure to particulate matter and ozone because they will have the incidental effect of reducing fossil fuel-fired power plant emissions of ozone and particulate matter precursor pollutants.

13. CLF's members live and recreate in areas throughout New England that are now, and will be in the future, impacted by climate change, rendering them at risk for the adverse public health effects of climate change. CLF's members also include persons owning property and recreating in coastal areas that have already experienced sea level rise, as well as the accompanying erosion, direct loss of coastal property, and compromised wetland areas. CLF's members further include elderly persons and others living in urban areas with high concentrations of ground-level ozone, making them particularly vulnerable to the adverse health impacts associated with exposure to these elevated concentrations.

14. In addition to my role at CLF, I have been a resident of Massachusetts for 45 years. I am 68 years old. I live at 40 Battery Street, in Boston, which is located in Suffolk County. I have lived at this address for 12 years. I also own property at 65 East India Row, in Boston, which is located in Suffolk County.

15. Both my home and my property are located on the waterfront and are in high-risk flood areas according to the U.S. Federal Emergency Management Agency. I am aware that increased global temperatures cause increased flooding, due to a combination of sea level rise, storm surge, and extreme precipitation events. Because my home and my property are within close proximity to Boston Harbor, they are vulnerable to damage from such flooding.

16. I have children, as well as a two year-old grandchild and another on the way, living in the Boston area and visiting me regularly. They are an important reason why I am so concerned about the issue of climate change. I worry about how the changing climate will impact their health and their futures. I believe we must do everything we can to protect them from the adverse effects of climate change.

17. The Guidelines at issue in the above-referenced matter will be a significant step toward addressing climate change and its effect on rising waters, increasing bad ozone, allergens, and our children's future planet. I believe the Guidelines will also make the air that I, my children, and my grandchildren breathe cleaner and safer. CLF seeks to intervene on EPA's behalf to defend the Guidelines. I support EPA's promulgation of the Guidelines, and I support CLF's efforts to intervene on EPA's behalf.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 22nd day of October, 2015.

/s/ Douglas I. Foy
Douglas I. Foy
40 Battery Street
Boston, MA 02109

Exhibit F

Declaration of John Stith

DECLARATION OF JOHN STITH

I, John Stith, declare as follows:

1. I am a Senior Manager of Database Marketing at Environmental Defense Fund. I have had this position for more than nine years.

2. My duties include maintaining an accurate list of members. My colleagues and I provide information to members, acknowledge gifts and volunteer actions and manage the organization's member databases. My work requires me to be familiar with Environmental Defense Fund's purposes, staffing, activities, and membership.

3. Environmental Defense Fund is a membership organization incorporated under the laws of the State of New York. It is recognized as a not-for-profit corporation under section 501(c)(3) of the United States Internal Revenue Code.

4. Environmental Defense Fund relies on science, economics and law to protect and restore the quality of our air, water and other natural resources. Environmental Defense Fund employs more than 150 scientists, economists, engineers, business school graduates and lawyers to help solve challenging environmental problems in a scientifically sound and cost-effective way.

5. Environmental Defense Fund has a strong organizational interest, and a strong interest that is based in its members' recreational, aesthetic, professional,

educational, public health, environmental, and economic interests, in reducing harmful air pollution from the power sector, including greenhouse gas emissions from new, modified, and existing fossil fuel fired electric generating units.

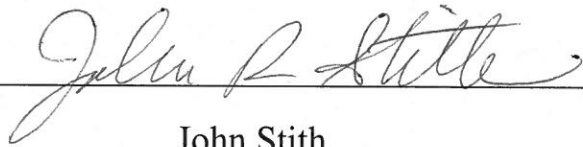
6. Through its programs aimed at protecting human health and the environment, Environmental Defense Fund has long pursued initiatives at the state and national levels designed to reduce emissions of air pollutants from all major sources, including power plants. This work has addressed emissions of greenhouse gases, air pollutants classified as “hazardous air pollutants” under the Clean Air Act, and other harmful air pollutants.

7. When an individual becomes a member of Environmental Defense Fund, his or her current residential address is recorded in our membership database. The database entry reflecting the member’s residential address is verified or updated as needed. The database is maintained in the regular course of business and each entry reflecting a member’s residential address and membership status is promptly updated to reflect changes. I obtained the information about our membership discussed below from the database.

8. Environmental Defense Fund currently has over 350,000 members in the United States, and we have members in all 50 states and the District of Columbia. These members likewise have a strong interest in protecting human

health and the environment from air pollution. Many live in and near areas affected by air pollution and climate change.

9. I declare that the foregoing is true and correct.



John Stith

Dated: *October 13, 2015*

Exhibit G

Declaration of Gina Trujillo

DECLARATION OF GINA TRUJILLO

I, Gina Trujillo, do hereby affirm and state:

1. My name is Gina Trujillo. I have personal knowledge of the matters stated herein. I am over the age of 18 and suffer from no legal incapacity.

2. I am the Director of Membership for the Natural Resources Defense Council (NRDC). I have been employed at NRDC for over 24 years. My duties as Director of Membership include supervising the maintenance and updating of NRDC's membership database, which is a listing of those persons who are members of NRDC.

3. NRDC is a membership organization incorporated under the laws of New York. It is recognized as a not-for-profit corporation under section 501(c)(3) of the United States Internal Revenue Code.

4. NRDC currently has more than 295,000 members nationwide. NRDC has members in all fifty states and the District of Columbia.

5. When an individual becomes a member of NRDC, the member authorizes NRDC to take legal action on his or her behalf to protect the environment and public health.

6. NRDC's mission statement declares that "The Natural Resources Defense Council's purpose is to safeguard the Earth: its people, its plants and

animals, and the natural systems on which all life depends.” The mission statement goes on to declare that NRDC works “to restore the integrity of the elements that sustain life—air, land, and water—and to defend endangered natural places.” NRDC’s mission includes the prevention and mitigation of global warming in order to protect and maintain NRDC’s members’ use and enjoyment of natural resources threatened by climate change.

7. Through its Climate and Clean Air Program, NRDC pursues federal and state policies to curb air pollution, particularly the pollutants that are causing climate change. NRDC seeks to reduce emissions of carbon dioxide from the electricity sector, which is responsible for approximately forty percent of the nation’s carbon dioxide pollution.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

Dated: New York, New York
October 1, 2015


Gina Trujillo

Exhibit H

Declaration of Heather Taylor-Miesle

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

Franklin County)
)
State of Ohio)

DECLARATION OF HEATHER TAYLOR-MIESLE

I, Heather Taylor-Miesle, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) and suffer no legal incapacity. I submit this declaration in support of the Motion to Intervene in Support of Respondents, of The Ohio Environmental Council (“The OEC”) in the above-referenced matter.

2. I am currently The OEC’s Executive Director, a position I have held since early in September 2015. My role at The OEC requires me to be familiar with the organization’s mission and goals, and responsible for achieving them. I am also familiar with The OEC’s structure, activities, and membership. I have been an environmental advocate for over 18 years, most recently as the Director of the Natural Resources Defense Council Action Fund.

3. The OEC is a 501(c)(3) non-profit, member-supported corporation, organized and existing under the laws of Ohio, and headquartered at 1145 Chesapeake Avenue, Suite 1, Columbus, Ohio 43212. The Ohio Environmental

Council was created in 1969 on the strength of individuals and continues more than 40 years later because of individuals and groups who work together to protect and restore Ohio's natural resources and beauty. The OEC's current membership consists of more than 120 member organizations and 2,231 individuals, many located and residing in Ohio and the Ohio River Valley.

4. The OEC's mission is to secure healthy air, land, and water for all who call Ohio home. To that end, we work with more than 120 environmental, conservation, and community groups in Ohio that share a common goal: to ensure clean air, safe water, and conservation of Ohio's natural resources for our families and future generations. The OEC's programmatic activities include our Clean Air and Climate Program, and a Clean Energy Program. Working to promote effective federal climate change policies, including defending the U.S. Environmental Protection Agency's ("EPA's") authority to regulate greenhouse gas emissions under the Clean Air Act is right at the center of The OEC's programmatic and mission-directed activity.

5. My role at the OEC requires me to be up-to-date and knowledgeable about current and future threats to the environment in Ohio, and more broadly, to the Ohio Valley region.

6. Among the most important of these current and future environmental threats to Ohio and to our nation, is the ongoing damage due to a changing climate.

I am aware of the science documenting the existence of climate change, its causes, and its potential adverse impacts on public health and welfare and the environment. I understand that human activities, especially burning fossil fuels to generate electric power, have resulted in elevated levels of carbon dioxide pollution. Carbon dioxide and other greenhouse gases trap heat in the Earth's atmosphere that would otherwise escape, and that "greenhouse effect" is now causing a variety of climatic and environmental changes, including, but not limited to, increased temperatures and drought in certain regions of the United States, as well as increases in the frequency and intensity of extreme weather events, including increased precipitation and heavy downpours in the Midwest, and also the expansion of tick-borne Lyme-disease and tropical insect-borne diseases into areas of the country where they previously did not occur.

7. I understand that 2014 had the highest average temperatures of any year in recorded U.S. history, and that this is part of a pattern of increased warming globally and in my region.

8. I know that urban areas, like Columbus, Ohio, have significantly more impermeable surfaces, including concrete and asphalt and less vegetation than surrounding areas, and therefore suffer from a "heat island" effect. This heat island effect causes average city summertime temperatures that are several degrees warmer than in the surrounding regions – and that in turn poses a direct health risk

to those living in the city. Extreme heat events can cause health problems, including heat exhaustion, heat stroke, and even death, particularly among at-risk populations, such as children, the elderly, or those with low socio-economic factors. This “heat island” effect also contributes to greater concentrations of ground-level ozone, which forms when warm polluted air mixes with sunlight. Hotter areas experience higher localized concentrations of ground-level ozone than cooler areas. In turn, ground-level ozone combines with particulate matter to create smog. Smog is a particular problem in urban areas because of the increased presence of vehicles and industry, as well as the “heat island” effect.

9. Ozone smog irritates the respiratory system, reduces lung function, inflames and damages cells that line lungs, makes lungs more susceptible to infections, aggravates asthma, aggravates chronic lung disease and can cause permanent lung damage. Increasing temperatures associated with climate change will exacerbate ground-level ozone and ozone smog, and associated health problems. The OEC’s members residing in urban areas are experiencing the effects of summer smog now, which will continue and intensify if greenhouse gas accumulations in the atmosphere remain unchecked and average temperatures continue to rise.

10. I know that climate change results in more frost-free days. This can increase the range of insects carrying tropical illnesses, which previously would

not have survived Ohio's winter. When there are more frost-free days, that also contributes to shifts in flowering time and pollen initiation from allergenic plants. Increases in carbon dioxide itself can elevate plant-based allergens, resulting in longer, more intense allergy seasons.

11. I understand that this case challenges an EPA final rule, entitled: "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," ("Guidelines"). I understand that The OEC submitted comments to U.S. EPA on the proposed rule. In my opinion, and based on my experience, the final Guidelines are a significant step forward in reducing greenhouse gas emissions in the United States and confirm the country's international leadership in the global effort to address climate change.

12. The Guidelines will require states, including Ohio, to impose standards requiring reduced carbon dioxide emissions from the fleet of existing fossil fuel-fired power plants to meet a federal emissions target. There are a large number of fossil fuel-fired power plants, many of them coal-fired plants, in the Ohio River Valley. Some of the Ohio River Valley power plants are among this country's largest sources of carbon dioxide. And fossil fuel-fired power plants are, taken together, the source of nearly forty (40) percent of U.S. anthropogenic carbon dioxide and thirty-one (31) percent of U.S. total anthropogenic greenhouse gas emissions. EPA estimates that the Guidelines will result in thirty-two (32)

percent less carbon pollution from power plants than in 2005, or 870 million short tons. The Guidelines will also reduce exposure to particulate matter and ozone because they will have the incidental effect of reducing fossil fuel-fired power plant emissions of ozone and particulate matter precursor pollutants.

13. The OEC's members who live and recreate in areas throughout the Ohio River Valley, are now and will be in the future at risk for the adverse public health effects due to climate change. I am aware from consulting with The OEC's program staff that our members include elderly persons and others living in urban areas with high concentrations of ground-level ozone, making them particularly vulnerable to the adverse health impacts associated with exposure to these conditions.

14. In addition to my professional role at The OEC, I am a native Ohioan. I recently returned to my home state with my husband and children, after having lived in northern California for seven years. I am also a member of The OEC.

15. Our experience in California included living through the past four years of extreme drought conditions, which are the worst on record for that state, and certainly were difficult for our family of four. These extreme dry conditions have caused concern for California agriculture, which is an important source of fruit and vegetables for the entire country. The drought also has led to and

exacerbated large wildfires in California, causing significant property damage and damage to air quality in the state and in the region.

16. Additionally, in 2014, while we were still living in California, my husband became extremely ill with viral meningitis, which the medical personnel treating him associated with West Nile Virus. Most people sickened by West Nile recover quickly, but some develop serious complications which can include meningitis, an infection of the brain lining. In drought-stricken California, creeks and washes have turned into tiny puddles of standing water and brought infested birds and mosquitos into closer contact. West Nile Virus – a disease of the tropics – has been in California only since 2002, but every year communities across the state are seeing more cases.

17. I have two children. They are an important reason why I am so concerned about the issue of climate change. Climate change isn't just about weather forecasts and computer models. It's about families trying to keep their children safe during heat waves and dirty air days and struggling to hold on to their livelihoods in the midst of drought. It's about families spending their nest eggs to rebuild homes after fires, floods and storm surges. And for my family, I worry about how the changing climate will impact my own children's health and their futures. I believe we must do everything we can to limit the damage that already

has been done, and also to protect them from future adverse effects of climate change.

18. In my view, based on my professional experience and my observation of my own family's experience of the adverse impacts that can result from climate change, it is important to do all we can to limit existing power plant emissions of carbon dioxide and other greenhouse gases. The EPA Guidelines are a significant step toward addressing climate change and its effect on public health and the environment, in Ohio, and in the United States. I understand that EPA projects that the Guidelines will also make the air we breathe cleaner and safer. The OEC seeks to intervene on EPA's behalf to defend the Guidelines. I support EPA's promulgation of the Guidelines, and I support the OEC's efforts to intervene on EPA's behalf.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this ^{22nd} day of October, 2015.



Heather Taylor-Miesle, Executive Director
The Ohio Environmental Council
1145 Chesapeake Avenue, Suite I
Columbus, Ohio 43212

Exhibit I

Declaration of Mary Anne Hitt

DECLARATION OF MARY ANNE HITT

I, MARY ANNE HITT, declare under penalty of perjury that the following is true and correct and within my personal knowledge.

1. I am the Director of the Sierra Club's Beyond Coal Campaign, and have held this position since 2010. I joined the Sierra Club staff in 2008, as the Deputy Director of the Beyond Coal Campaign (I was also employed by Sierra Club for a short period prior to that). I have been a member of Sierra Club since March 2001.
2. I am familiar with Sierra Club's general goals, its projects, and its membership information, as well as its activities surrounding the settlement agreement that EPA reached in late 2010 with Sierra Club, Natural Resources Defense Council, Environmental Defense Fund, and a coalition of state and local governments.
3. Sierra Club's mission is "to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives."

4. While at the Sierra Club, I have worked on numerous matters involving federal air pollution regulations and rulemakings promulgated by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act.
5. The Sierra Club was significantly involved in the regulatory and legal events that led to the decision authorizing EPA to regulate greenhouse gases. The Sierra Club, along with two other organizations, filed a lawsuit against EPA in 2002, requesting that the agency regulate greenhouse gases from motor vehicles. EPA settled that lawsuit and responded to the petition in 2003, stating that the agency lacked authority to regulate greenhouse gases under the Clean Air Act. The Sierra Club and numerous states and environmental organizations challenged that denial, ultimately leading to the Supreme Court ruling in *Massachusetts v. EPA*.
6. The Sierra Club has been advocating EPA regulation of greenhouse gases from power plants for many years. In 2003, Sierra Club filed a lawsuit to require EPA to update its new source performance standards (NSPS) for electric generating units under section 111 of the Clean Air Act. Pursuant to a settlement of that lawsuit, EPA revised the NSPS for electric generating units in 2006 but failed to include standards for greenhouse gas emissions. Consequently, the Sierra Club and numerous states and environmental

organizations challenged that rule. The D.C. Circuit Court of Appeals remanded the rule to EPA in light of the Supreme Court's decision in *Massachusetts v. EPA*.

7. In 2010, after EPA had failed to act on the remand order for three years, Sierra Club, along with NRDC and EDF, sent a demand letter to EPA which led to a negotiated settlement. EPA ultimately committed to proposing NSPS rules under section 111 for both new and existing power plants by September 2011.
8. EPA did not meet these deadlines, but ultimately proposed a new source rule on January 8, 2014 and an existing source rule on June 18, 2014. Both rules were finalized on August 3, 2015.
9. Sierra Club and its members have a strong interest in ensuring that EPA's greenhouse gas regulations for power plants are successfully and timely implemented and that they achieve the greatest emission reduction benefits possible. To that end, the Club and its members would be injured if any legal challenges to these rules succeed, or if the rules' implementation were either halted or delayed, or if the rules' benefits were weakened in any way.

10. Fossil fuel-fired power plants account for over one-third of total greenhouse gas emissions and are the largest stationary source of air pollution in the United States. They are also significant sources of harmful smog- and soot-forming pollutants, including sulfur dioxide, nitrogen oxides, and fine particulate matter, as well as hazardous air pollutants like mercury and hydrogen chloride. Measures that reduce greenhouse gas emissions from fossil fuel-fired power plants have the co-benefit of reducing these other air pollutants as well.
11. The Sierra Club has members throughout the country who live in close proximity to fossil fuel-fired power plants and are harmed by the air pollution these plants emit. Sierra Club members are also harmed by the various effects of climate change that is caused by greenhouse gas emissions.
12. The Beyond Coal Campaign promotes the use of clean energy sources by encouraging utilities and power companies nationwide to retire existing coal-fired plants and switch to cleaner energy sources.

Dated this 23rd day of October, 2015.

Mary Anne Hitt

Mary Anne Hitt

Exhibit J

Declaration of Jane Reardon

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

Hartford County)
)
Connecticut)

DECLARATION OF JANE REARDON

I, Jane Reardon, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) and suffer no legal incapacity. I submit this declaration in support of the Motion for Intervention by the American Lung Association (“the ALA”) in the above referenced matter.

2. I currently serve on several boards with the ALA, including the National ALA Board. I have served on ALA boards for approximately thirty years, and have served as a National Board Member for at least five years. I joined the ALA as a volunteer in 1975 in order to educate people about pulmonary health and disease. Through my long history with the ALA I have become familiar with the ALA’s mission and activities.

3. ALA has a vision of a world free from lung disease. Its mission statement is “to save lives by improving lung health and preventing lung disease.” Through advocacy, education, and research, the ALA aims to reduce the burden of

lung disease on patients and their families. Because the effects of climate change may exacerbate lung disease, a central part of the ALA's mission is to advocate for strong regulations to mitigate climate change.

4. I understand that human activities, especially the burning of fossil fuels to generate electric power, have resulted in elevated levels of carbon dioxide pollution. Carbon dioxide in the earth's atmosphere acts like a blanket, trapping heat that would otherwise escape. This "greenhouse effect" is causing climactic and environmental changes in my area and around the country. These changes include warmer summers, warmer winters, and more frequent and severe heat waves.

5. Through my work on the ALA's board, I have learned about the final rule at issue in this litigation: "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units," commonly known as the "Clean Power Plan."

6. In addition to my volunteer responsibilities as an ALA board member, I am a Pulmonary Clinical Nurse Specialist and Adult Nurse Practitioner at Hartford Hospital in Hartford, Connecticut. I have been a nurse practitioner since 1988. Through this work I see patients who suffer from acute and chronic pulmonary conditions including chronic obstructive pulmonary disease ("COPD") and asthma. My patients come from the same population that the ALA serves.

7. COPD is the third leading cause of death in the United States. COPD is a chronic inflammatory lung disease that causes difficulty breathing, coughing, and wheezing. Patients with COPD occasionally suffer from acute exacerbation episodes during which they may experience abruptly worsening symptoms including shortness of breath and increased coughing. In some cases, exacerbation episodes may be fatal. COPD has no known cure but its symptoms can be managed in part by avoiding environmental triggers.

8. Asthma is a chronic lung disease that causes intermittent inflammation of the airways, leading to wheezing, chest tightness, shortness of breath, and coughing. Patients with asthma occasionally suffer asthma attacks, which cause an abrupt worsening of asthma symptoms and may be fatal. Asthma has no known cure, but its symptoms can be managed in part by avoiding environmental triggers.

9. I am aware that climate change is likely to result in increased concentrations of ground-level ozone. Ground-level ozone forms when certain air pollutants, called ozone precursors, interact with sunlight and heat. On warm days, ozone precursors react more with sunlight than on cool days leading to higher concentrations of ground-level ozone. Higher summertime temperatures and increased frequency of heat waves due to climate change exacerbate ground-level ozone problems, particularly in cities.

10. I am aware that the Clean Power Plan will reduce reliance on fossil fuel-fired power plants. I understand that this change will not only impact carbon emissions, but also is likely to have the effect of reducing emissions of other air pollutants which lead directly to the formation of ground-level ozone and particulate matter. Relative to lower carbon alternatives, fossil fuel-fired power plants emit more nitrogen oxides and sulfur dioxide which lead to the formation of ground-level ozone and particulate matter, and directly emit more particulate matter. By encouraging a shift away from fossil fuel-fired power plants, the Clean Power Plan is likely to directly and significantly reduce ground-level ozone and particulate matter.

11. Inhaling ground-level ozone and particulate matter irritates the respiratory system, and may reduce lung function, inflame and damage cells that line lungs, make lungs more susceptible to infection, cause permanent lung damage, and even lower life expectancies. People with COPD, asthma, and other chronic lung conditions are more vulnerable to high concentrations of ground-level ozone and particulate matter. Ground level ozone and particulate matter are known to trigger COPD exacerbation episodes and asthma attacks that may lead to hospitalizations and death.

12. I am aware that a rise in temperature and temperature extremes are associated with an increased risk of hospitalization and death for people with

COPD. In recent years, I have observed a trend of increasing numbers of patients hospitalized due to COPD exacerbations. I have observed that these episodes tend to occur with greater frequency in the summer and on hot days. My patients with COPD have told me that on hot days they must remain indoors with air conditioning to prevent exacerbation episodes. COPD patients who do not have air conditioning tend to come to the hospital on hot days.

13. In recent years, I have also observed a trend of increasing numbers of patients hospitalized for asthma attacks. I have observed that these attacks tend to occur with greater frequency in the summer months and on hot days.

14. I am concerned that, as climate change leads to hotter summers and increased frequency and severity of heat waves, my patients with COPD and asthma will have more frequent exacerbation episodes and asthma attacks, leading to an increase in emergency room visits, hospitalizations, and deaths.

15. It is my understanding that the Clean Power Plan represents a significant step toward reducing greenhouse gas emissions and reliance on fossil fuel-fired power generators, thereby reducing both ozone and particulate matter precursor pollutants. This step will mitigate the adverse health effects experienced by my patients and other people the ALA serves. I am concerned that in the absence of this rule, my patients and other people the ALA serves will needlessly

suffer from lung irritation, COPD exacerbations, and asthma attacks that can lead to hospitalization and death.

16. I am seventy (70) years old. I live in a home at 27 Wolcott Drive Granby, Connecticut 06035. I have lived at this property since 1972.

17. I have two adult daughters who also live in the northeast, one in Boston, and the other in New York City. Both daughters suffer from asthma. My younger daughter also suffers from a chronic cough. Having seen patients with asthma exacerbated by increased exposure to ground-level ozone, I am concerned about the effects of warmer days and worsening air quality due to climate change on my daughters' health.

18. Both of my daughters and I experience seasonal allergies. I understand that warmer weather in the northeast is leading to a shift in flowering time and pollen development that is expanding the allergen season. I am concerned that as climate change continues to increase the length and severity of the allergy season, that my daughters' and my seasonal allergy symptoms will worsen.

19. In my spare time, I enjoy gardening, walking, and otherwise spending time outdoors at my home in Granby. It is my impression that summers in my area have become hotter, leading to more frequent poor air quality days. Due to this change in temperature, I have been forced to shift my outdoor activities earlier in the morning to avoid the heat of the day and the associated high ozone

concentrations. If climate related temperature rises remain unchecked, hotter and poorer air quality days will increase in frequency, leading me to further curtail my enjoyment of the outdoors.

20. I believe the Clean Power Plan is a significant step toward addressing climate change and its effect on air quality and pulmonary health. I believe the rule will also make the air that my children and I breathe cleaner and safer. The ALA seeks to intervene on EPA's behalf to defend the Clean Power Plan. I support EPA's promulgation of the Clean Power Plan, and I support the ALA's efforts to intervene on EPA's behalf.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 29 day of September, 2015.

lsl Jane Reardon

Jane Reardon
27 Wolcott Drive
Granby, CT 06035

Exhibit K

Declaration of Jenny E. Ross

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DECLARATION OF JENNY E. ROSS

I, Jenny E. Ross, state and declare as follows:

1. I have personal knowledge of the following facts, and if called as a witness could and would testify competently to them.

2. I live in Truckee, California. I received a Bachelor's degree from Stanford University in philosophy, with emphasis and an honors thesis on philosophy of science and biomedical ethics and a minor in biology in 1983, and a J.D. from Harvard Law School in 1986.

3. I care deeply about the natural world and biodiversity. I am a member of the Center for Biological Diversity ("Center") and I rely upon the Center to represent my interests in protection of the environment through advocacy and the enforcement of our environmental laws.

4. I am aware of the promulgation of rulemakings by the U.S. Environmental Protection Agency under Section 111 of the Clean Air Act that aim to reduce greenhouse gas emissions from the nation's fleet of power plants by 32 percent from a 2005 baseline by 2030 (the "Clean Power Plan"). I know that power plants are the largest source of carbon dioxide emissions in the U.S., contributing roughly one-third of all domestic greenhouse gas emissions, and that implementation of the Clean Power Plan would prevent many hundreds of millions of metric tonnes of carbon pollution. The Clean Power Plan would also reduce large amounts of pollutants that contribute to soot and smog, cutting emissions of sulfur dioxide, nitrogen dioxide, and PM_{2.5}. The latter, in the form of black carbon, is deposited in the Arctic and accelerates ice and snow melt, further exacerbating the decline and potential extinction of ice-dependent species. I believe implementation of the Clean Power Plan, by virtue of reducing greenhouse gases and, incidentally, black carbon from the largest U.S. source of greenhouse gas emissions, is essential to combating global warming and its direct effects on my ability to make my livelihood as a photographer of wildlife threatened by that warming.

5. I practiced law for a number of years and I now earn my living as a freelance photographer and writer specializing in wildlife natural history and conservation subjects, and environmental issues. I take photographs that capture the essence of wild animals and wild places, explain scientific research to non-scientists, inspire concern and action for wildlife conservation and

1 ecosystem protection, and elicit a renewed appreciation of the natural world. My images of wildlife
2 and ecosystems and my essays on natural history, conservation, and environmental issues have been
3 displayed in a number of professional exhibitions and are frequently published in magazines,
4 newspapers, and books. I also frequently collaborate with renowned scientists to create presentations
5 and articles that combine photographs with scientifically accurate and engaging information.

6 6. I have won awards for my work including the Nature's Best Award for Wildlife
7 Photography, the Philip Hyde Award for Environmental Photography, and the Vision Award of the
8 North American Nature Photography Association. I have also been honored in the World Press
9 Photo awards, the Pictures of the Year International awards, the BBC Wildlife Photographer of the
10 Year awards, and the Society of Environmental Journalists' Annual Awards for Reporting on the
11 Environment.

12 7. For more than a decade much of my work has focused on arctic species and
13 ecosystems and the transformation underway in the Far North due to climate change. I have
14 observed significant changes in the Arctic as the result of rising temperatures, and my work and my
15 life have been directly affected by the effects of climate change there. I first photographed polar
16 bears and other subjects in the Arctic in 2000, and I became deeply involved in photographing arctic
17 species when I was commissioned in 2002 to create a traveling photographic exhibition about the
18 world's eight living bear species, including polar bears. Following creation of the exhibit I have
19 continued to visit the Arctic to observe and photograph polar bears, a wide variety of other species,
20 arctic sea ice, glaciers, and ice caps including the Greenland Ice Sheet. My visits to the Arctic have
21 also focused on collaborating with scientists who are studying arctic species, their ecosystems, and
22 the earth systems they rely on. I have also reviewed much of the current scientific literature relating
23 to warming of the Arctic due to anthropogenic climate change. I am familiar with extensive
24 information collected and analyzed by scientists around the world demonstrating unequivocally that
25 climate change is altering the Arctic, posing a fundamental threat to the continued survival of many
26 arctic species – including ice-dependent species such as bearded seals, polar bears, and Pacific
27 walrus – and threatening human well-being by causing adverse effects in the Arctic that are having
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1 serious and worsening negative consequences globally (e.g., melting of the Greenland Ice Sheet is
2 causing global sea level to rise).

3 8. I have used the images and information I have obtained through my work in the
4 Arctic for lecture-slideshow presentations, articles and other purposes focused on educating the
5 general public about wildlife, ecosystems and earth systems in the Arctic, and the significant
6 ominous changes occurring in the Far North due to rising temperatures as the result of human-caused
7 climate change. Increasingly I am also focusing on the global ramifications of the arctic changes that
8 are underway. For example, based on my work studying polar bears and their habitat, I created a
9 slideshow and lecture entitled *Life on Thin Ice: Polar Bear Biology, Ecology, Behavior, and*
10 *Conservation*. This presentation includes more than 150 of my polar bear photographs, and covers
11 numerous scientific issues in a manner that is interesting and engaging for a general audience. I
12 update the content of the presentation on a regular basis to ensure it includes the most recent
13 scientific information. Past clients and venues for the presentation include: The Alaska Bear Forum,
14 the Anchorage Museum of History & Art, Aurora Expeditions, California Audubon, the Desert
15 Research Institute, Google, Heritage Expeditions, Lindsay Wildlife Museum, the Northern Nevada
16 Science Coalition, Oceanwide Expeditions, Polar Bears International, the Pratt Museum, the Pacific
17 Grove Museum of Natural History, San Francisco Zoo, Sierra Club, Squaw Valley Institute, and the
18 Tahoe Bear League. Recently I was invited to give a Keynote Address focusing on polar bears and
19 climate change at Pennsylvania State University's "Polar Day" in March 2016, an event presented
20 by The Polar Center at Penn State, where some of the most renowned climate scientists in the world
21 are employed as researchers and professors.

22 9. Arctic species like seals, walruses, and polar bears are among the most important and
23 highest-priority species for me to photograph and study in their arctic sea-ice environment in the
24 coming years, because they are exceedingly reliant on the ice, the ice-free period is lengthening
25 significantly in many regions that are their crucial habitat, and the transformation of the climate in
26 the Arctic due to rising temperatures is happening extraordinarily fast. Arctic seabirds are also
27 increasingly being affected by loss of arctic sea ice and rising arctic temperatures, and those species
28 are therefore also becoming increasingly important for me to photograph and study. I plan to

1 continue to use my photographs and research to highlight the plight of arctic species and the
2 transformation of arctic ecosystems and earth systems occurring due to climate change.

3 10. I travel frequently to the Arctic and sub-Arctic to photograph seals and other ice-
4 dependent species. For example, at the beginning of March 2006, I traveled to the Gulf of St.
5 Lawrence to photograph adult seals and their pups on the sea ice. During that trip, I witnessed and
6 photographed the changes in ice conditions that are taking place due to climate change. The region
7 experienced unusually warm temperatures that winter. Although historically the Gulf of St.
8 Lawrence has typically been nearly covered with massive floes of thick sea ice in early spring, that
9 year the sea ice was very sparse, thin, and highly fractured as a result of warm temperatures. Due to
10 a lack of sea ice and poor ice conditions, we had considerable difficulty locating any ice at all on
11 which to land a helicopter and photograph seals.

12 11. Just a few weeks prior to my arrival in the Gulf of St. Lawrence region in March
13 2006, a colony of grey seals – which normally give birth to pups on the floating sea ice – had been
14 forced to pup on the beach at Pictou Island due to the absence of ice. Subsequently, a storm surge in
15 the Northumberland Strait engulfed the beach and drowned approximately 75% of the seal pups.
16 Canadian Fisheries officials estimated that more than 2000 seal pups died. This incident is
17 representative of the profound impacts on the arctic ecosystem that are occurring due to climate
18 change.

19 12. In July 2006 I traveled by ice-reinforced ship in the Svalbard Archipelago, attempting
20 to photograph polar bears and ice seals. Although there is typically extensive sea ice at that time of
21 year in that portion of the Norwegian Arctic, there was almost none during my trip. Even in
22 locations that were only about 600 miles from the North Pole, the pack ice was absent. As a result,
23 ice-dependent polar bears and seals were very difficult to find and photograph. I was not able to
24 photograph any seals during that trip. The bears that we were able to locate were limited to the last
25 remaining bits of annual fjord ice or were marooned on land. I observed and photographed several
26 bears, including a small cub, that were obliged to swim from one island to another in search of food
27 due to the lack of ice. Knowing that scientists have documented the recent drowning deaths of polar
28 bears in similar circumstances, I anxiously watched the Svalbard bears as they traveled through the

1 ocean waves. It was poignant and upsetting to see the exhausted young cub, lacking body fat and not
2 well insulated from the cold water, struggling to follow its mother.

3 13. On another trip to the Magdalen Islands (Les Îles de Madeleine) to photograph ice
4 seals in March 2007, I again had a very difficult time even finding any seals, or ice, to photograph,
5 and some days we could not even fly in a helicopter because it was raining. The ice we did encounter
6 was extremely thin and slushy, and melting rapidly. I saw just two harp seal pups and one family of
7 hooded seals during a week in the region. I was told by my local guide that many newborn seal pups,
8 which are unable to swim, were drowned when the ice supporting them had disintegrated. The one
9 hooded seal family I photographed was on a small, isolated floe of ice that was moving extremely
10 quickly in the current because there was no other ice surrounding it to hold it in place. I could not
11 remain on the floe photographing the seals for very long, because the floe was rapidly being carried
12 eastward by the current, out of the Gulf toward the Atlantic Ocean and beyond helicopter range.

13 14. In summer 2009 I traveled by ice-reinforced ship throughout various regions of the
14 Bering and Chukchi Seas, ultimately reaching my northernmost destination for the trip along the
15 north coast of Wrangel Island in Russia. I had hoped to have the opportunity during that voyage to
16 photograph ice seals on floes; however, the arctic temperatures were warm and the sea ice had
17 melted and receded very far to the north toward the Central Polar Basin, so I saw no sea ice or seals
18 at all. While in the Chukchi Sea, I observed and photographed an adult polar bear swimming in
19 rough waves during a storm. The bear was far from land and even farther from the nearest sea ice.
20 Although it is not possible to know the ultimate fate of that bear, due to its location and the ocean
21 conditions, I believe it may have drowned before reaching safety.

22 15. During my voyage in summer 2009, I also visited Arakamchechen Island on the
23 Russian side of the Bering Strait. While ashore I was shocked to discover entire coastal hillsides of
24 permafrost thawing and collapsing as the result of rising temperatures. I was extremely disturbed by
25 these observations, because I know that an enormous quantity of methane, a carbon-based
26 greenhouse gas even more powerful in its planet-heating characteristics than carbon dioxide, is
27 released from permafrost as it thaws. It was very worrying and distressing to see such clear evidence
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1 that man-made global warming is already causing extensive areas of permafrost to disintegrate and
2 add even more greenhouse gases to our atmosphere.

3 16. In October 2009 I traveled to Greenland with a South Korean film crew from Arirang
4 TV to work on a project about climate change in the Arctic. My photographs of landscapes, wildlife,
5 and indigenous people in Greenland, and my experiences on assignment there for Arirang TV
6 were featured in two television documentaries about climate change; and a collection of my
7 photographs related to climate change issues in the Arctic was also displayed in an associated
8 exhibition. The TV documentaries were broadcast in English on all Arirang network outlets
9 worldwide in December 2009 and January 2010. The exhibition of photographs was presented in
10 Seoul, South Korea at the Total Museum of Contemporary Art during November 2009, and then
11 traveled to Copenhagen for display during December 2009 in association with the United
12 Nations Climate Change Conference.

13 17. During my October 2009 assignment for Arirang TV, while I was in remote
14 northwestern Greenland, the Arirang film crew and I accompanied three experienced Inuit hunters
15 on a multi-day trip north from Qaanaaq through Smith Sound and into the Kane Basin to document
16 their subsistence hunt of walruses to obtain meat for their families. We were obliged to travel in a
17 very small motorboat, because there was no sea ice on which we could travel by dog sled. The
18 hunters had great difficulty finding any walruses, due to the lack of sea ice on which the animals
19 ordinarily haul out. Finally, after searching for almost two days and reaching nearly 79° north in the
20 Kane Basin, the hunters were able to kill two walruses. To ensure the meat does not spoil, it is
21 essential to butcher the animals immediately. In a remote bay, the men eventually found a single ice
22 floe strong enough to hold our weight along with the walruses and were able to accomplish the
23 butchering. I photographed the meticulous and time-consuming butchering process. By the time the
24 hunters completed their task, it was evening. The temperature abruptly began plummeting, the wind
25 shifted, and the men suddenly realized that rapidly-forming sea ice had totally blocked off the
26 entrance to the bay and almost completely surrounded our vessel. Despite their lifetimes of
27 experience living and hunting in the Arctic, the men said they had never encountered such a situation
28 before. I knew from my research that climate change has caused freezing and thawing conditions in

1 the Arctic to become so erratic and unpredictable that rapidly-forming and quickly-deteriorating sea
2 ice often creates extremely dangerous conditions for indigenous arctic hunters. The men were clearly
3 exceedingly anxious as they struggled to push the ice away from our boat. At one point, the most
4 senior hunter said to me in an agitated tone totally uncharacteristic for an Inuit man, "This is bad!
5 Very bad! Very dangerous!" The men were so concerned about the situation that they told the
6 Arirang film crew and me to go down into the vessel's tiny sitting area below deck and remain there
7 while they tried to deal with the crisis. We complied, and sat below listening to the straining engine,
8 the hunters rushing back and forth above, and the grinding and thumping of ice against the hull of
9 the boat. I knew it was a potentially life-threatening situation. If we could not get out into open
10 water, we would be trapped in the ice for an indefinite period of time. If the hull were damaged by
11 shifting, expanding, and scraping ice, there would be nowhere for us to go except into the frigid
12 water, and that would be deadly. A vast expanse of rapidly-forming new ice can be strong enough to
13 trap and fatally damage a small boat, while being insufficiently thick to support the weight of a
14 person. Thankfully the hunters were ultimately able to free the boat and move us back into open
15 water. But our narrow escape from perilous circumstances impressed upon me that as climate change
16 causes arctic sea ice conditions to be increasingly capricious, my work is becoming increasingly
17 hazardous.

18 18. In July 2010, I traveled by ship to the Barents Sea and Svalbard Archipelago to view
19 and photograph arctic wildlife, ecosystems, and sea ice. I had hoped to be able to photograph ice
20 seals, including ringed seals and bearded seals, but there was insufficient sea ice in continental shelf
21 regions to offer any good opportunities. On July 21, 2010 in the Barents Sea, as the sea ice melted
22 rapidly and opportunities for polar bears to hunt seals also quickly disappeared, I observed and
23 photographed an extraordinary incident of polar bear infanticide and cannibalism involving an adult
24 male polar bear preying on a yearling cub for food. In December 2011 the journal *Arctic* published a
25 scientific paper I wrote in collaboration with renowned polar bear biologist Dr. Ian Stirling
26 describing this incident and analyzing the relationship between the effects of climate warming in the
27 Arctic and the occurrence of polar bear infanticide and cannibalism on melting summer sea ice.

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1 19. In July 2011, I traveled by ship to Novaya Zemlya, Russia (an arctic archipelago
2 located north of Siberia where the Barents and Kara Seas meet), and to the Russian Arctic
3 archipelago Franz Josef Land in the Barents Sea, to observe and photograph arctic species and
4 ecosystems. In far northern Novaya Zemlya on July 30, 2011, I photographed a polar bear climbing
5 on the face of a sheer cliff at the edge of the ocean on a tiny island, attempting to feed on seabird
6 (guillemot) eggs and chicks in nests perched on the cliff. The bear was stranded on land and unable
7 to hunt for seals, because the sea ice had melted throughout the region and had receded very far to
8 the north. Due to his inability to hunt for his normal prey, this bear clearly endangered his safety and
9 even his life by climbing precariously on the face of this cliff. He was unable to eat any birds or eggs
10 during the entire time I watched and photographed him climbing on the cliff, and he ultimately
11 abandoned his efforts. I believe this bizarre polar bear behavior involving attempted predation of this
12 type of seabird that does not nest on the ground has only been reported a handful of times, in other
13 Arctic locations where bears were marooned on land due to a lack of sea ice and seabirds were
14 accessible to them. Moreover, to my knowledge this behavior has never been previously documented
15 in such an extreme situation involving a seemingly desperate hungry polar bear endangering its life
16 by climbing on a sheer cliff, and it has not previously been photographically documented in the
17 manner I was able to do on this occasion.

18 20. In August 2011, I traveled to the Chukchi Sea for additional exploration, and I spent
19 several days visiting various coastal regions of Wrangel Island. While there, I observed and
20 photographed a ringed seal that was hauled out on a gravel shoreline near Ushakovskoye village. To
21 haul out on land is very unusual behavior for a ringed seal, and it was clear the animal was sick. It
22 had numerous skin lesions and erosions, and it was obviously extremely uncomfortable and
23 distressed as it baked in the hot sun. I was very disturbed by my observations and worried both about
24 the fate of this particular animal and the well-being of other arctic seals and ice-dependent arctic
25 species that are struggling to survive in the absence of sea ice due to climate change.

26 21. On August 18, 2011 during my visit to Wrangel Island, I observed and attempted to
27 photograph a group of several adult male polar bears resting on the tundra near shore. It was a sunny
28 day, and it was unusually warm for the Arctic – as it had been throughout my visit to the region that

1 summer. All the bears in the group appeared very lethargic and were completely inactive. So as not
2 to disturb the bears, I set up my tripod and camera with a 600mm telephoto lens and a 1.4x
3 teleconverter, and sat on the ground approximately 80 to 100 meters away from the bears. As I
4 observed them, I noticed that all of them except one were unusually thin for mid-summer, and I was
5 concerned about the fact they would be stranded on land for several additional months without the
6 ability to hunt for seals due to the lack of sea ice. At one point an additional male polar bear walked
7 from the shoreline toward the group of males I was observing, and then continued walking onward.
8 This additional bear was extremely skinny, with protruding bones, and I was very worried he would
9 not survive the remaining lengthy ice-free period. As I attempted to photograph all of these bears, I
10 noticed extraordinarily pronounced heat waves radiating upward from the hot ground, and causing a
11 heat shimmer phenomenon similar to the shimmering waves in the air one can see coming from an
12 aircraft's engines when they are operating as the plane sits on the tarmac. This heat shimmer effect
13 caused by the very high temperature of the ground baking in the sun was very noticeable when I was
14 looking through my telephoto lens and attempting to focus on the Wrangel Island bears. The
15 distortion of the air resulting from the heat shimmer caused visibility of the bears through my lens to
16 be extremely impaired. In fact, the significant distortion created by the heat waves radiating up into
17 the air from the tundra between the bears and me precluded my ability to achieve proper focus on the
18 animals with my camera. As a consequence of this heat shimmer, I was unable to get any sharp
19 photographs of any of these bears.

20 22. During my trip to the Russian High Arctic in 2011, I observed a herd of walruses
21 hauled out on an extremely small sliver of beach beneath towering cliffs on Herald Island in the
22 Chukchi Sea. I know that walruses must haul out to rest frequently on sea ice or land, and they
23 strongly prefer sea ice for a variety of crucial reasons. So I knew the walruses were hauled out on
24 Herald Island because there was no sea ice throughout the entire region. At the haul-out there were
25 walruses of all ages, including small calves, and they were all crammed tightly together. Herald
26 Island consists almost entirely of very steep and high cliffs, and the only beach I saw there other than
27 the one where the walruses were hauled out was occupied by several polar bears that were also
28 stranded ashore because there was no sea ice. I was extremely concerned that if the walrus herd were

1 startled, perhaps by an approaching polar bear, the animals would stampede into the water and the
2 young calves might be crushed and suffocated. Knowing that numerous calves have been killed in
3 that manner in recent years when large numbers of walruses have been obliged to haul out on land in
4 the absence of sea ice, I was very worried about the risky situation I witnessed.

5 23. I had hoped to observe and photograph adult female polar bears accompanied by
6 young cubs during my visit to Wrangel Island in 2011; however, despite many attempts to locate
7 family groups of mothers and cubs, I did not have the chance to photograph any, and in fact I did not
8 even see any. This situation was very disappointing and disturbing for me, and caused me to be
9 extremely worried about the declining status of the Chukchi Sea polar bear population. Following
10 my visit to Wrangel Island, while I was working on writing a magazine article about polar bears in
11 the fall of 2011, I discussed the status of Wrangel Island polar bears by email with Russian scientist
12 Nikita Ovsyanikov, who has observed and documented polar bears on that high-arctic island for
13 many years. He told me that use of Wrangel Island by female polar bears for maternity denning has
14 been declining significantly in recent years in association with the decline of arctic sea ice
15 throughout the region. Based on my ongoing research, I know that the number of denning polar
16 bears on Wrangel Island and the number of cubs born there have decreased even further since 2011.
17 I have not returned to Wrangel Island since 2011, in part because I know it is now even more
18 unlikely that I will have the opportunity to photograph mother polar bears and their cubs.

19 24. At the beginning of 2012 I formally launched my ongoing long-term project entitled
20 Life On Thin Ice® to leverage the power of photography combined with science to communicate
21 accurately and effectively about climate change in the Arctic, increase public interest in the issues
22 and understanding of the problems, and motivate informed action to address the growing climate
23 crisis. My goals for this project include comprehensively documenting the earth systems,
24 ecosystems, species, and people of the circumpolar Arctic and the increasing effects of climate
25 change on them; and educating members of the public about climate change issues by enhancing
26 their understanding of the Arctic and the current problems, long-term risks, and world-wide
27 consequences of the transformation that is underway there due to rising temperatures.

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1 25. In summer 2012, I participated in the Norwegian Polar Institute's (NPI) Ice, Climate,
2 and Ecosystems (ICE) expedition to the Central Polar Basin of the Arctic Ocean to photograph and
3 learn about a variety of scientific research activities for my magazine feature article about sea ice to
4 be published in 2014, and to provide photographs for NPI's educational and outreach purposes. The
5 sea ice was so sparse and thin that it was necessary for us to travel much farther north than originally
6 anticipated – to a location above 82.5 degrees north – in order to find a floe of sea ice large enough
7 and thick enough for the scientists to conduct their experiments. Often the weather was so unusually
8 warm that wearing the required waterproof "survival suit" while working out on the ice was
9 uncomfortably hot. During the course of the scientific work, in three separate incidents, three of the
10 NPI researchers fell through thin disintegrating sea ice and plunged into the frigid 4000-meter-deep
11 ocean. The scientists were able to extract themselves from the water safely, but those dangerous
12 events were distressing, and it was worrisome to be working out on the sea ice myself in such
13 perilous conditions.

14 26. In May 2013 I visited the Prince William Sound region to photograph sub-Arctic
15 species as well as migratory birds traveling through the area on their way to the High Arctic for
16 breeding. In particular, I planned to photograph spectacularly large numbers of western sandpipers
17 that visit particular locations in the Prince William Sound region annually in the spring to rest and
18 feed during their migration. Until recently, the timing of this epic gathering was quite predictable,
19 and I timed my trip to coincide with the time-frame when, historically, the largest numbers of these
20 shorebirds would be there. But, due to erratic and atypical temperatures all along their migration
21 route, very few western sandpipers were present during my visit, and I was not able to obtain the
22 photographs I needed.

23 27. In August and September 2013 I traveled by ship to northeast Greenland to
24 photograph arctic wildlife, glaciers, and the Greenland Ice Sheet. During my trip I saw and
25 photographed countless shrinking glaciers coming from the ice sheet. In one location, so many large
26 icebergs had recently been calved that it was impossible to get near the front of the glacier, even in a
27 highly-maneuverable Zodiac boat. In many other locations, former tidewater glaciers had receded so
28 much that they no longer reached the sea; instead, their meltwater poured down bare, previously ice-

1 covered mountainsides into the ocean. Witnessing these stark and widespread examples of the
2 effects of global warming, and knowing that they indicated significant sea level rise was being
3 caused by the disintegration of the Greenland Ice Sheet and associated glaciers, was very disturbing
4 to me.

5 28. In October 2014 a major magazine feature article I wrote and photographed was
6 published by *Ocean Geographic*. The article, entitled “Global Warning: The Arctic Meltdown” and
7 sub-titled “Why the Disappearance of Arctic Sea Ice Matters,” focused on the loss of arctic sea ice as
8 the result of global warming, and explained the many significant adverse consequences of vanishing
9 sea ice that are of grave concern for wildlife and people throughout the Arctic and beyond.

10 29. When I am not actually traveling in various regions of the Arctic, on virtually a daily
11 basis I monitor a variety of satellite images and scientific data products relating to the status of the
12 sea ice throughout the Arctic and sub-Arctic. In addition, on an ongoing basis I read new scientific
13 studies on a wide range of issues related to arctic species, ecosystems, and earth systems, and the
14 effects of climate change on them. I also stay in touch with many scientists who conduct fieldwork on
15 arctic species and subjects. Apart from my desire to understand the issues, I do so because I must be
16 well-informed concerning the status of the ice and associated species in order to plan my
17 photographic trips, and I need to know the best available scientific data in order to prepare the
18 lecture-slideshow presentations I do, as well as the articles I write.

19 30. In light of the rapidly declining extent and quality of arctic sea ice, plus what I have
20 seen and have not seen during my trips throughout the Arctic, as well as what I have learned through
21 my research, I’m extremely worried about the fate of ice-dependent species in the Far North. The
22 rapid rates at which temperatures are rising and ice is disappearing in the Arctic cause me great
23 apprehension and emotional distress. I am particularly concerned by my observations of the
24 increasing lack of sea ice over biologically-productive continental shelf regions that are crucial
25 habitat for many arctic species. In addition, I am profoundly worried about the thawing of arctic and
26 sub-arctic permafrost due to climate warming, and the dangerous additional carbon emissions that
27 will be released as a consequence of permafrost disintegration. I am also extremely concerned about
28 and distressed by rapid melting of the Greenland Ice Sheet, because I know that its disintegration will

1 cause major global sea level rise, destruction of crucial ecosystems all along the world's coasts, and
2 permanent flooding of numerous heavily-populated regions around the globe.

3 31. Additional warming caused by human emissions of greenhouse gases and black
4 carbon will substantially affect my ability to continue to visit and photograph arctic species in their
5 natural habitat. Indeed, global warming may cause the extinction of the polar bear, the bearded seal,
6 and other arctic species, and the complete transformation of the arctic environment in which I work.
7 Global warming and the decline of ice-dependent arctic species have a direct, negative impact on my
8 livelihood. The decline and disappearance of arctic species from areas in which they previously
9 occurred and in which I previously found them increases the expenses I must incur and the time I
10 must invest to observe and photograph them, activities upon which my livelihood and my profession
11 directly depend.

12 32. I have every intention of continuing my career as a wildlife and nature photographer
13 and writer, and of continuing all of the above-described activities in the future. The arctic
14 environment and arctic species will remain a major focus of my photography and writing, and as
15 such I have every intention of continuing to visit all areas of the Arctic as frequently as possible in
16 the coming years. For my Life On Thin Ice® project, and for associated articles, exhibits, lecture-
17 slideshow presentations, and a book about the changing Arctic, I will need to do many additional
18 trips to the Arctic during at least the next several years to photograph arctic wildlife, ecosystems,
19 earth systems, and scientific research throughout the circumpolar region. These trips are becoming
20 increasingly difficult, risky, and expensive as global warming continues to affect the Arctic and its
21 species.

22 33. A healthy arctic environment is extremely important to, and greatly enhances, both
23 my personal and professional lives. A healthy, functioning sea-ice ecosystem is necessary for me to
24 continue to pursue my photography career successfully. I have already experienced firsthand the
25 effects of global warming on the arctic ecosystem. These changes have diminished my ability to
26 photograph, observe, and enjoy the Arctic and the species that live there. If global warming and
27 other threats to the Arctic continue unabated, I believe that many species I study and photograph will
28 decline and become extinct, and I will be unable to continue to observe and photograph the species

1 in the wild. Moreover, I may never be able to photograph some species I have sought but have not
2 been able to find as the result of sea-ice loss. Although I believe a certain amount of additional
3 climate warming and consequent impacts to the Arctic are inevitable, I also believe it is not too late
4 to save the Arctic as we know it and all the species that depend upon the sea-ice ecosystem. A
5 critically important part of saving the Arctic is to enforce our existing environmental laws, including
6 the Clean Air Act.

7 34. If greenhouse gases from power plants are not reduced, or if those reductions are
8 delayed, enormous amounts of those gases and significant amounts of black carbon *will continue to*
9 be emitted into the atmosphere, directly contributing to the continuing decline and eventual
10 extinction of the ice-dependent species I photograph and study. As they already have, these
11 emissions will continue to impede and impair, and in some cases eradicate altogether, my ability to
12 photograph these species, greatly increase the expense and time it takes me to obtain photographs
13 and scientific information, multiply the risks of injury and even death to me personally while
14 engaged in these endeavors, and in general interfere with my ability to use the Arctic professionally.
15 This will directly affect my income and livelihood. I will also be harmed personally because I care
16 greatly for the arctic ecosystem and its amazing species, and wish to see them preserved and
17 protected. I would be deeply distressed personally by further harm to or the loss of the arctic species
18 I photograph and study. I believe that these harms and losses will be significantly ameliorated if
19 greenhouse gases from power plants are reduced.

20 I declare under penalty of perjury that the foregoing is true and correct and was executed on
21 October 4, 2015 at Truckee, California.

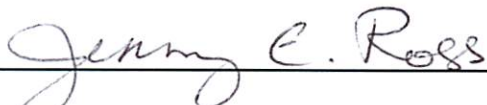
22
23 
24 _____
25 Jenny E. Ross
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27
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Exhibit L

Declaration of Sara Molyneaux

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

Norfolk County)
)
Commonwealth of Massachusetts)

DECLARATION OF SARA MOLYNEAUX

I, Sara Molyneaux, hereby declare and state as follows:

1. This declaration is based on my personal knowledge. I am over the age of eighteen (18) and suffer no legal incapacity. I submit this declaration in support of the Motion to Intervene in Support of Respondents, of Conservation Law Foundation (“CLF”) in the above-referenced matter.

2. I am currently the Chair of the CLF Board of Trustees. I have served on CLF’s Board and have been a CLF member for seventeen years. My role at CLF requires me to be responsible for achieving the organization’s goals and mission, and to be familiar with CLF’s structure, activities, and membership.

3. Founded in 1966, CLF is a 501(c)(3) non-profit, member-supported corporation, organized and existing under the laws of Massachusetts, and headquartered at 62 Summer Street, Boston, Massachusetts 02110. CLF maintains offices in Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. CLF’s membership consists of approximately 3,130 individuals, residing in thirty

states and the District of Columbia, with the largest concentrations in the New England region.

4. CLF's mission is to work to solve the most significant environmental challenges facing New England. CLF relies on sound science and uses the law to create and advocate for innovative strategies to conserve natural resources, protect public health, and promote vital communities in our region. Working to promote effective climate change policies, including defending the U.S. Environmental Protection Agency's ("EPA's") authority to regulate greenhouse gas emissions under the Clean Air Act, constitutes a core element of CLF's mission.

5. My role at CLF requires me to be up-to-date and knowledgeable about current and future threats to the environment in Massachusetts, and more broadly, to the New England region.

6. Among the most important current and future threats to Massachusetts' natural and built environment is the ongoing damage due to a changing climate in the region. I am aware of the science documenting the existence of climate change, its causes, and its potential adverse impacts on public health and welfare and the environment – specifically to the natural and built environment in the New England region. I understand that human activities, especially burning fossil fuels to generate electric power, have resulted in elevated levels of carbon dioxide pollution. Carbon dioxide and other greenhouse gases trap

heat in the Earth's atmosphere that would otherwise escape, and that "greenhouse effect" is now causing a variety of climatic and environmental changes, including, but not limited to, increased temperatures, sea level rise, and increases in the frequency and intensity of extreme weather events, including increased precipitation and heavy downpours in the northern United States.

7. I understand that 2014 had the highest average temperatures of any year in recorded U.S. history, and that this is part of a pattern of increased warming globally and in my region. Between 1895 and 2011, average annual temperatures in Massachusetts, indeed the entire Northeast United States, increased by approximately two degrees Fahrenheit, and precipitation increased by more than ten percent. I understand that sea level rise is already documented in Massachusetts and that global sea levels are projected to rise one to four feet by 2100, substantially increasing coastal flooding risks in my region.

8. I know that urban areas, such as the Greater Boston metropolitan area in Massachusetts, have significantly more impermeable surfaces, including concrete and asphalt and less vegetation than surrounding areas, and therefore suffer from a "heat island" effect, whereby average temperatures are several degrees warmer than in the surrounding regions. The "heat island" effect poses a direct health risk because extreme heat events can cause health problems, including heat exhaustion, heat stroke, and even death, particularly among at-risk

populations, such as children, the elderly, or those with low socio-economic factors. This “heat island” effect also contributes to greater concentrations of ground-level ozone, which forms when warm polluted air mixes with sunlight. Hotter areas experience higher localized concentrations of ground-level ozone than cooler areas. In turn, ground-level ozone combines with particulate matter to create smog. Smog is a particular problem in urban areas because of the increased presence of vehicles and industry, as well as the “heat island” effect.

9. Ozone smog irritates the respiratory system, reduces lung function, inflames and damages cells that line lungs, makes lungs more susceptible to infections, aggravates asthma, aggravates chronic lung disease and can cause permanent lung damage. Increasing temperatures associated with climate change will exacerbate ground-level ozone and ozone smog and associated health problems. CLF’s members residing in urban areas are experiencing the effects of summer smog now, which will continue and intensify if greenhouse gas accumulations in the atmosphere remain unchecked and average temperatures continue to rise.

10. I know that climate change results in more frost-free days and can contribute to shifts in flowering time and pollen initiation from allergenic plants. Increases in carbon dioxide itself can elevate plant-based allergens, resulting in longer, more intense allergy seasons.

11. I understand that this case challenges an EPA final rule, entitled: “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units,” (“Guidelines”). On December 1, 2014, CLF submitted comments on the proposed Guidelines. In my opinion, and based on my experience at CLF, the Guidelines are a significant step forward in reducing greenhouse gas emissions in the United States and confirm the country’s international leadership in the global effort to address climate change.

12. The Guidelines will require states, including Massachusetts, to impose standards requiring reduced overall carbon dioxide emissions from the fleet of existing fossil fuel-fired power plants to meet a federal emissions target. Fossil fuel-fired power plants are by far the largest source of U.S. carbon dioxide emissions, making up nearly forty (40) percent of U.S. anthropogenic carbon dioxide and thirty-one (31) percent of U.S. total anthropogenic greenhouse gas emissions. The Guidelines will result in thirty-two (32) percent less carbon pollution from power plants than in 2005, or 870 million short tons. The Guidelines will also reduce exposure to particulate matter and ozone because they will have the incidental effect of reducing fossil fuel-fired power plant emissions of ozone and particulate matter precursor pollutants.

13. CLF’s members live and recreate in areas throughout New England that are now, and will be in the future, impacted by climate change, rendering them

at risk for the adverse public health effects of climate change. CLF's members also include persons owning property and recreating in coastal areas that have already experienced sea level rise, as well as the accompanying erosion, direct loss of coastal property, and compromised wetland areas. CLF's members further include elderly persons and others living in urban areas with high concentrations of ground-level ozone, making them particularly vulnerable to the adverse health impacts associated with exposure to these elevated concentrations.

14. In addition to my role at CLF, I have been a resident of Massachusetts for 38 years. I live at 7 Wilsondale Street in Dover, which is located in Norfolk County. My husband and I own property at 581 and 595 Old Post Road in Cotuit, which is located in Barnstable County on Cape Cod.

15. My property in Cotuit, Massachusetts is located on the waterfront and is in a high-risk flood area according to the U.S. Federal Emergency Management Agency. I am aware that increased global temperatures cause increased flooding, due to a combination of sea level rise, storm surge, and extreme precipitation events. Because my property is within close proximity to the Atlantic Ocean, it is vulnerable to damage from such flooding.

16. My husband of thirty-five years is a native New Englander and suffers from chronic asthma, which causes shortness of breath, wheezing, coughing, and chest pain. These symptoms are aggravated by ground-level ozone and ozone

smog. My husband is, therefore, directly impacted by climate change because increased temperatures lead to more frequent bad ozone days, exacerbating his symptoms.

17. My husband enjoys spending time outdoors and participating in recreational activities. Based on the heightened frequency and intensity of bad ozone days, my husband has been forced to curtail these activities. If climate-related temperature rises remain unchecked, these bad ozone days will only continue to increase, and the associated adverse health impacts will be compounded.

18. I have two children living in the Boston area. They are an important reason why I am so concerned about the issue of climate change. I worry about how the changing climate will impact their health and their futures. I believe we must do everything we can to protect them from the adverse effects of climate change.

19. The Guidelines at issue in the above-referenced matter will be a significant step toward addressing climate change and its effect on rising waters, increasing bad ozone, allergens, and our children's future planet. I believe the Guidelines will also make cleaner and safer the air that I, my children, and my grandchildren breathe. CLF seeks to intervene on EPA's behalf to defend the

Guidelines. I support EPA's promulgation of the Guidelines, and I support CLF's efforts to intervene on EPA's behalf.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 22nd day of October, 2015.

/s/ Sara Molyneaux
Sara Molyneaux
7 Wilsondale Street
Dover, MA 02030

Exhibit M

Declaration of Art Cooley

DECLARATION OF ART COOLEY

I, Art Cooley, hereby declare as follows:

1. I am a member of Environmental Defense Fund and have been a board member since I founded EDF along with several other scientists on Long Island, New York, in 1967. I currently reside in La Jolla, California. I have a graduate degree in biology from Cornell University, and I am a retired high school biology teacher. I have served for 20 years as a Naturalist and Expedition Leader for Lindblad Expeditions, an organization that offers ecological expedition cruises.
2. I am familiar with and concerned about emissions of greenhouse gases, which are causing climate change. I am aware of the latest scientific evidence, which concludes that warming of the climate is unequivocal, that it is extremely likely that human influences have been the dominant cause of this warming since the mid-20th century; and that continued emissions of greenhouse gases will cause additional warming.
3. I understand that climate change poses a significant threat to human health and the environment. I am aware of science suggesting that certain types of extreme weather events—including heat waves, heavy downpours, and, in some areas, floods and draughts—have become more frequent or more

intense due to climate change. Data also shows that warming is causing sea levels to rise; oceans to become more acidic; and snowpack to decline.

4. These changes threaten human health. For example, among other things, climate change can contribute to deteriorating air quality by exacerbating ozone pollution and increasing the risk of wildfires. And rising sea levels can threaten public safety through increased risk of coastal flooding and storm surge.
5. California has experienced many of these impacts. In particular, California is in the middle of a historic drought, and within Southern California alone, studies project climate change will exacerbate diminishing water supplies, further stretching this already scarce resource. Likewise, Southern California currently has some of the worst air quality in the nation. Higher temperatures, due to climate change, will likely worsen these conditions in California. California will likely also experience rising sea levels and increases in storm intensity and other extreme weather events.
6. I understand that immediate action to reduce greenhouse gas emissions is necessary to mitigate the impacts of climate change. Incremental actions addressing significant emissions sources can lessen harms associated with a changing climate and can reduce the risk that the climate system reaches certain “tipping points”—reflecting abrupt or irreversible changes in

climatic conditions. Meaningful actions in the United States can also help to encourage other countries to take similar action.

7. I understand that fossil fuel fired power plants in the United States are the single largest source of greenhouse gas emissions in the nation, contributing almost a third of all greenhouse gas emissions in the U.S. I am aware that in 2013, California power plants emitted approximately 45 million metric tons of carbon pollution. These plants are also significant sources of other harmful air pollutants—like sulfur dioxide and nitrogen oxides—which can cause respiratory diseases and contribute to premature death.
8. I am aware the Administrator of the U.S. Environmental Protection Agency (EPA) has recently signed final carbon pollution standards for new and modified fossil fuel-fired power plants (Carbon Pollution Standards) and emission guidelines for existing power plants (Clean Power Plan). Together, these actions will ensure future power plants are constructed in a way that minimizes greenhouse gas emissions and that existing plants reduce these emissions. Indeed, EPA projects that the Clean Power Plan will reduce CO₂ emission from the power sector approximately 32 percent below 2005 levels by 2030.
9. EPA concluded that these standards will have important public health and climate benefits, including by reducing the health and environmental risks

associated with climate change and by securing additional health improvements due to reductions in harmful co-emitted pollutants like sulfur dioxide and nitrogen oxides. EPA estimated that the Clean Power Plan will prevent up to 3,600 premature deaths and 90,000 asthma attacks in children across the U.S., delivering net benefits ranging from \$26 billion to \$45 billion. I am also aware of a separate study evaluating the proposed Clean Power Plan, concluding the health co-benefits of the Plan would accrue in all of the lower 48 U.S. States, including California.

10. I am aware that numerous parties have filed legal challenges seeking to overturn Clean Power Plan and have sought to stay the applicability of the Rule. These parties will likely also challenge the Carbon Pollution Standards. I am concerned that if these efforts to overturn or weaken the rule are successful, greenhouse gas emissions and other air pollution from power plants will not be reduced, and I will be harmed.

11. If challenges to the Clean Power Plan are successful, I am also concerned that carbon dioxide emissions from power plants will remain high, the risks associated with climate change will persist and intensify, and my ability to use and enjoy my own property and the beaches close to my house will be impaired.

12. La Jolla, California, where I live, is one block from the ocean. The ability to live close to the ocean and the beach was a significant factor in my residential choice and also substantially contributes to the economic value of my property. Approximately three times a week, I visit the ocean where I walk along the beach, and intend to continue to do so. I also visit, examine, and immensely enjoy the biology and ecology of the ocean shore and have a recreational, aesthetic, and personal connection to the particular area of the ocean and beach that I regularly visit. There is documented sea level rise in San Diego Harbor and other low lying beaches close to my house, and the beach on which I take frequent walks is now completely inundated in high surf and high tide conditions. Severe storms also contribute to coastal retreat—both through erosion and from the resulting landslides. I am concerned that I would not be able to continue to enjoy my property and my current recreational activities as I can now if the sea level continues to rise and the current beach changes or disappears.

13. I am also concerned that, if carbon emissions from power plants are left unaddressed, the health benefits associated with reductions in co-emitted pollutants like sulfur dioxide and nitrogen oxides will not be realized and consequently my health and the health of my family will suffer. My wife is affected by poor air quality and takes appropriate medicines to reduce that

effect. That impact, in turn, affects me – for example, in requiring me to change my personal recreational or work activities to assist her or help her avoid impacts, and because of the emotional harm I experience when her health is threatened by poor air quality. I must take similar measures to protect my health during unusually hot days or during high pollution episodes due to wildfires. Absent action, I am concerned that these adverse air quality events will persist and intensify, causing me and my family harm.

14. Finally, I am concerned that if the Carbon Pollution Standards are weakened or overturned, future power plants could be built without modern pollution controls, resulting in additional greenhouse gas emissions. Moreover, if the Carbon Pollution Standards are overturned, I am concerned that the significant reductions attributable to the Clean Power Plan may be imperiled.

15. For all the aforementioned reasons, I am deeply concerned that I will be injured if the Carbon Pollution Standards or Clean Power Plan are weakened or overturned, which would allow greenhouse gas emissions and other air pollution to persist unabated. I strongly support the efforts of the Environmental Defense Fund to ensure that the benefits from the Carbon Pollution Standards and Clean Power Plan are realized.

16.I declare that the foregoing is true and correct to the best of my knowledge,
information and belief.



Art Cooley

Dated: 10/2/15

Exhibit N

Declaration of Denise Fort

DECLARATION OF DENISE FORT

I, Denise Fort, hereby declare as follows:

1. I am currently a member of Environmental Defense Fund (EDF), and I have been a member for many years. I support EDF's efforts to protect human health and the natural environment by taking steps to reduce climate change and its impacts. My family and I reside in Santa Fe County, New Mexico, where we have lived for more than twenty-five years and plan to remain. I am a tenured faculty member at the University of New Mexico School of Law, with the title of Emeritus Professor of Law, and my area of expertise is environmental and natural resources law.
2. Because of my work as an environmental law professor, I am familiar with and deeply concerned about the impacts of climate change due to greenhouse gas emissions. I am aware of the latest scientific evidence, which concludes that warming of the climate is unequivocal, that it is extremely likely that human influences have been the dominant cause of this warming since the mid-20th century; and that continued emissions of greenhouse gases will cause further warming.
3. Climate change is posing a significant threat to the wellbeing of humans, wildlife, and the natural environment. For instance, I am aware of scientific evidence suggesting that certain types of extreme weather events—including

heat waves, heavy downpours, and, in some areas, floods and droughts— have become more frequent and / or intense. Studies also confirm that warming is causing sea levels to rise; oceans to become more acidic; and snowpack to decline.

4. These and other changes threaten human health. For example, more intense heatwaves lead to more heat-related disease and deaths. Increase risk of drought can contribute to water supply shortages and exacerbate wildfires, which can cause personal injury, damage infrastructure, and contribute to worsening air pollution problems. Extreme precipitation events can lead to flooding that can cause injuries and increase the risk of contracting waterborne diseases. And rising sea levels can threaten public safety through increased risk of coastal flooding and storm surge. These are just some of the numerous public health and safety harms associated with climate change.
5. Many of these impacts are occurring in New Mexico, where my family and I live. For instance, New Mexicans are experiencing elevated temperatures, reduced snowfall in the mountains, and an increase in both the occurrence and severity of extreme weather events like drought and heat waves. Projected summertime temperatures for the southwest region due to climate change are higher than the rest of country, making New Mexicans like

myself particularly vulnerable to heat-related diseases and deaths. And New Mexico has experienced an increase in the frequency and severity of wildfires in recent years.

6. I understand that immediate action to reduce greenhouse gas emissions is necessary to mitigate the impacts of climate change. Scientific evidence suggests that incremental actions addressing significant emissions sources can lessen harms associated with a changing climate. Such actions can likewise reduce the risk that the climate system reaches certain “tipping points”—reflecting abrupt or irreversible changes in climatic conditions. And actions in the United States can demonstrate the feasibility and effectiveness of taking similar actions elsewhere, increasing the likelihood that other countries follow suit.
7. In the United States, fossil fuel-fired power plants are by far the largest source of greenhouse gas emissions, responsible for almost a third of climate pollution. I am aware that, in 2013, New Mexico’s power plants emitted approximately 29 million metric tons of carbon dioxide. These power plants are also sources of other harmful air pollutants like sulfur dioxide and nitrogen oxides, which contribute to air pollution that can result in respiratory diseases and deaths.

8. I am aware the U.S. Environmental Protection Agency (EPA) recently finalized carbon pollution standards for new and modified fossil fuel-fired power plants (Carbon Pollution Standards) and emission guidelines for existing power plants (Clean Power Plan). Together, these actions will ensure future power plants are constructed in a way that minimizes greenhouse gas emissions and that existing plants reduce these emissions. Indeed, EPA projects that the Clean Power Plan will reduce power sector CO₂ emission approximately 32 percent below 2005 levels by 2030.
9. EPA concluded that these standards will have important public health and climate benefits, including by reducing the health and environmental risks associated with climate change and by securing additional health improvements due to reductions in harmful co-emitted pollutants like sulfur dioxide and nitrogen oxides. EPA estimated that the Clean Power Plan will prevent up to 3,600 premature deaths and 90,000 asthma attacks in children across the U.S., delivering net benefits ranging from \$26 billion to \$45 billion. I am also aware of a separate study examining the health benefits of the proposed Clean Power Plan and concluding these benefits would accrue in all of the lower 48 U.S. States, including New Mexico.

10. I am aware that numerous parties have filed legal challenges seeking to overturn the Clean Power Plan and have likewise sought to stay the applicability of the Rule. It is likely that parties also file legal challenges seeking to overturn the Carbon Pollution Standards. I am concerned that if these efforts to overturn or weaken the rule are successful, greenhouse gas emissions from power plants will not be reduced, and I will be harmed.

11. In particular, if challenges to the Clean Power Plan are successful, I am concerned that carbon dioxide emissions from power plants will remain high and the risks associated with climate change will persist and intensify. I am also concerned that emissions of other harmful pollutants, like sulfur dioxide and nitrogen oxides, will not be reduced, further increasing the risks to my health and the health of my family. In particular, my daughter had childhood asthma, and I am concerned about her vulnerability to smoke from forest fires.

12. I am also concerned that my ability to use and enjoy both my own property and the public lands I frequent throughout New Mexico will be impaired. I live in an area of New Mexico that is susceptible to wildfires, which can be exacerbated due to persistent heat waves and drought. I am concerned that, absent reductions in greenhouse gas emissions, I will face increased risk of fire-related damage to my property.

13. I also spend significant time with my family enjoying public lands throughout New Mexico. I hike at all elevations in the nearby Santa Fe and Carson National Forests, often accompanied by my daughter and friends, and intend to continue to do in the future. I am concerned that loss of additional forest lands due to drought, heatwave, and wildfires would limit my ability to enjoy hiking and bird watching throughout the region. I also kayak on the Rio Grande and Chama rivers and intend to continue to do so. In recent years, lower flows on these rivers have meant that I kayak less frequently, and I am concerned that later and less snow pack will further limit my ability to enjoy this pastime on New Mexico's rivers. I am also a cross country skier, but find that the season for skiing is becoming shorter and the snow is often too warm (soggy) for skiing now. This has been a dramatic change over the time I have lived in New Mexico.
14. Finally, I am concerned that if the Carbon Pollution Standards are weakened or overturned, future power plants could be built without modern pollution controls, resulting in additional greenhouse gas emissions. Moreover, if the Carbon Pollution Standards are overturned, I am concerned that the significant reductions attributable to the Clean Power Plan may be imperiled.
15. For all the aforementioned reasons, I am deeply concerned that I will be injured if the Carbon Pollution Standards or Clean Power Plan are weakened

or overturned, allowing greenhouse gas emissions to persist unabated and exacerbating the impacts of climate change.

16.I declare that the foregoing is true and correct to the best of my knowledge, information and belief.

A handwritten signature in dark ink, appearing to read "Denise Fort", written over a thin horizontal line.

Denise Fort

Dated: 10/2/2015

Exhibit O

Declaration of Marilyn Marsh-Robinson

DECLARATION OF MARILYNN MARSH-ROBINSON

I, Marilyn Marsh-Robinson, hereby declare as follows:

1. I respectfully submit this declaration on behalf of Environmental Defense Fund (“EDF”), a proposed Intervener-Respondent in this case. I am a member of EDF and work at EDF as a Partnerships and Alliances Manager. I have worked at EDF in the energy program since 1999, and I reside in Knightdale, North Carolina.
2. I am familiar with and deeply concerned about the impacts of climate change due to greenhouse gas emissions. I am aware of the latest scientific evidence, which concludes that warming of the climate is unequivocal, that it is extremely likely that human influences have been the dominant cause of this warming since the mid-20th century; and that continued emissions of greenhouse gases will cause further warming. North Carolina is particularly susceptible to climate change as a low-lying, coastal state—rising sea levels and more-frequent hurricanes pose significant threats across the state.
3. I am aware that, in addition to other harmful impacts, climate change is posing a significant threat to human health. For instance, warming temperatures associated with climate change can lead to worsening air quality, by, for example, exacerbating ozone pollution. Increased risk of

draught can contribute to water supply shortages and exacerbate wildfires, which can cause personal injury, damage infrastructure, and also contribute to worsening air pollution problems.

4. In the United States, fossil fuel-fired power plants are by far the largest source of greenhouse gas emissions, contributing almost a third of greenhouse gas emissions domestically. These power plants are also sources of other harmful air pollutants like sulfur dioxide and nitrogen oxides that can mix in the atmosphere and form soot and smog. These pollutants can have particularly harmful effects on individuals with asthma, causing serious health problems including irritation of the airways, coughing, difficulty breathing, and increased susceptibility to other respiratory illnesses, like pneumonia and bronchitis.
5. There are many fossil-fuel fired power plants in the vicinity of where I live, work and recreate. Within approximately 40 miles of this area, there are two natural gas plants and one coal fired plant. In 2013 alone, I understand that approximately 54 million metric tons of carbon pollution were emitted from all North Carolina power plants.
6. Substantial CO₂ emissions reductions are needed to address the impacts associated with climate change. I understand that the Administrator of the U.S. Environmental Protection Agency (EPA) has recently signed final

carbon pollution standards for new and modified fossil fuel-fired power plants (Carbon Pollution Standards) and emission guidelines for existing power plants (Clean Power Plan). Together, these actions will ensure future power plants are constructed in a way that minimizes greenhouse gas emissions and that existing plants reduce these emissions. Indeed, EPA projects that the Clean Power Plan will reduce carbon pollution from the power sector by approximately 32 percent below 2005 levels by 2030.

7. EPA concluded that these standards will have important public health and climate benefits, including by reducing the health and environmental risks associated with climate change and by securing additional health improvements due to reductions in harmful co-emitted pollutants like sulfur dioxide and nitrogen oxides, which can form smog and soot. Taken together, EPA estimated that the Clean Power Plan will prevent up to 3,600 premature deaths and 90,000 asthma attacks across the U.S., delivering net benefits ranging from \$26 billion to \$45 billion.
8. I understand that an earlier study examining the proposed Clean Power Plan has concluded that it would result in significant smog and soot reductions in North Carolina, delivering some of the greatest public health benefits of any state the researchers examined. In particular, that study projected the proposed Plan would account for 1,300 lives saved between

2020 and 2030 and will also prevent hospitalizations and heart attacks in North Carolina.

9. I am aware that numerous parties have filed legal challenges seeking to overturn the Clean Power Plan and some parties have likewise sought to stay the applicability of the Rule. It is also likely that parties will file challenges to the Carbon Pollution Standards. I am concerned that if these efforts to overturn or weaken these rules are successful, greenhouse gas emissions and emissions of other harmful pollutants like sulfur dioxide and nitrogen oxides from power plants will not be reduced, and I will be harmed.
10. In particular, I am very concerned about the power plants that are close to where I live and work as I have suffered from asthma since childhood. In the last decade, my asthma and respiratory infections have increased. I have used several medications and inhalers throughout the years to treat my asthma, and I keep an emergency albuterol inhaler on my at all times. In recent years, I started giving myself breathing treatments with a nebulizer and albuterol. I have given myself at least twenty treatments since May 2010. I greatly enjoy being in the outdoors, but due to my asthma, I must limit the amount of time I spend outside. If I stay outside for long periods of time, my breathing becomes labored and extremely

uncomfortable. Therefore, at times, I am not able to participate in outdoor activities for long periods of time, nor am I able to enjoy walks outside on a regular basis.

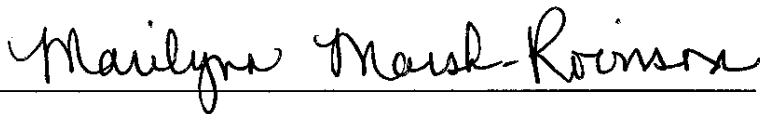
11.If challenges to the Clean Power Plan are successful, I am concerned that the power plants close to my home and work will not reduce greenhouse gases and other co-emitted pollution, as they otherwise would under the Plan. This would harm me by causing air quality in my area to worsen and exacerbating my asthma, leading me to potentially miss more work, limit my time outside, and spend more money on asthma-related medication. Accordingly, I am very concerned that I will be harmed if challenges to the Clean Power Plan are successful, and I strongly support EDF's efforts to defend the rule.

12.I am also concerned that I will be harmed if challenges to the Carbon Pollution Standards are successful. I am aware that EPA analysis projects that future plants will account for some emissions in North Carolina after 2022. I understand that any plants constructed in the state will likely be natural gas plants, and that the Carbon Pollution Standards would require that these plants meet a performance standard of 1,000 pounds per megawatt hour of CO₂. If the Carbon Pollution Standards are overturned or weakened, I am concerned that less efficient, higher polluting plants will

be constructed and that these plants will further exacerbate the air pollution that is already harming my health.

13. Likewise, I am aware that the Carbon Pollution Standards include emission standards for modified and reconstructed sources, ensuring that sources achieve a certain level of emissions performance when they take actions that result in significant changes or entail major capital investments. I am concerned that, if standards for modified and reconstructed sources are weakened or overturned, the existing power plants close to where I live, work, and recreate, could make changes that would result in less efficient, higher-polluting operations than would otherwise be allowed under the standards. This would further exacerbate the air pollution that is already harming my health.

14. I declare that the foregoing is true and correct to the best of my knowledge, information and belief.



Marilynn Marsh-Robinson

Dated: October 21, 2015

Exhibit P

Declaration of Elizabeth Coplon

DECLARATION OF ELIZABETH COPLON

I, Elizabeth Coplon, hereby declare as follows under penalty of perjury:

1. I am currently a member of the Natural Resources Defense Council (NRDC) and have been since 1995.
2. I support NRDC's efforts to stop global warming and reduce its impacts. I believe that global warming poses a significant threat to the wellbeing of humans, wildlife, and the natural environment, and that we have a responsibility to maintain the environment to the best of our ability.
3. I live in Malibu, California. My home is located on a piece of property that abuts the Pacific Ocean.
4. I am concerned about the effects that global warming will have on my property and community. It is well-known that global warming will cause a significant rise in sea levels, resulting in increased storm-surge damage and shoreline erosion. My property could be eroded and my home destroyed if sea level rise caused increased erosion of the shoreline. In addition, increased storm-surges could flood my home. Erosion of nearby beaches would also deprive me of recreational opportunities and likely affect the value of my home.

5. I am also concerned about the quality of the air in the Los Angeles area. I understand that global warming could worsen ozone conditions and other air quality problems. In addition, air quality has been extremely bad during wildfires, which are expected to occur more frequently as a result of global warming.

6. I believe that the regulation of greenhouse gas emissions from power plants and other sources will help prevent global warming, and avoid or lessen sea level rise and other problems associated with global warming. This will protect the economic value of my property and allow me to continue to use and enjoy the natural areas that led me to live here.

I declare under the penalty of perjury that the foregoing is true and correct to the best of my knowledge, information, and belief.

Executed in Malibu, California on October 1, 2015.

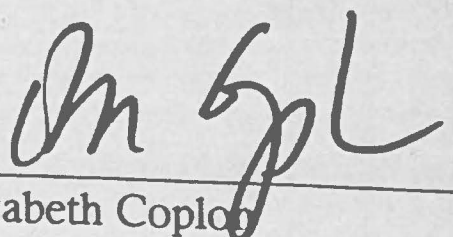

Elizabeth Coplon

Exhibit Q

Declaration of Dolores V. Leonard

DECLARATION OF DR. DOLORES V. LEONARD

I, Dr. Dolores V. Leonard, declare as follows:

1. My name is Dolores V. Leonard. I am over 18 years of age and competent to give this declaration. All information herein is based on my own personal knowledge unless otherwise indicated.
2. I live in Detroit in zip code 48217 in Wayne County, Michigan. I have lived at my current residence since 1957, moving to Detroit in 1955 from River Rouge in zip code 48218 where I was born.
3. My house is surrounded by industry; Wayne County is home to the DTE coal-fired power plant, steel mills, oil refineries, waste incineration plants, and other industrial facilities. I live one mile from the Marathon Detroit HOUP oil refinery, about two miles from DTE's River Rouge coal plant, and less than five miles from the AK Steel and US Steel facilities in Detroit and River Rouge. Many of these facilities are located across the street from peoples' homes, and are also close to public schools.
4. I am a member of the Sierra Club, which I joined in 2005 to help with their work on environmental justice. After joining, I volunteered for Sierra Club's Committee on Environmental Justice in its Detroit office, where I conducted research, edited a quarterly newsletter, and helped review permits and draft comments, among other things.

5. Sierra Club is a nationwide non-profit environmental membership organization, which has its purpose to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.

6. I am an advocate for environmental justice. I regularly attend permit hearings, public meetings, and rallies to raise awareness about industrial pollution. I am active in the community because I am concerned that industry's focus is on economics and profits, often at the expense of public health. Due in large part to community efforts, some of the worst industrial polluters are addressing air pollution problems they have created. For example, AK Steel will install air filtration systems at the nearby Salina Elementary and Salina Intermediate Schools and pay civil fines under a settlement for past air violations. We want to ensure that these industrial sources, including the county's coal plants, comply with the law and cease emitting harmful air pollution that affects our community's health and well-being.

7. Growing up in the Detroit area, I am well aware that communities of color and low-income communities are disproportionately harmed by the health effects of air pollution from industrial facilities. Zip code 48217—the most polluted zip

code in Michigan—is a predominately African American community. Wayne County has the highest number of pediatric asthma cases in the state, and also the highest state population living in poverty.

8. I also understand that low income communities and communities of color are disproportionately vulnerable to the threat of climate change. Scientists have estimated that climate change will have large impacts on the Great Lakes region, and several cities in this region, including Detroit which will experience more extreme heat events that will cause premature deaths from climate change. Due to a lack of economic resources and proper healthcare, these communities will be less prepared than others to adapt to climate-related impacts. As climate change worsens, these communities will also bear the burden of spending higher proportions of their income as a result of rising food prices or increased water scarcity.

9. I understand that fossil fuel-fired power plants emit more than one-third of the country’s carbon dioxide emissions, making them the largest single source of greenhouse gas pollution that drives climate change.

10. I am aware that coal plants like River Rouge also emit substantial amounts of other harmful air pollution that can have significant impacts on human health. I understand that soot-forming sulfur dioxide and particulate matter pollution from these types of facilities can penetrate deep into the lungs and are linked to a range

of respiratory problems, including bronchitis and asthma. Sulfur dioxide can also aggravate existing heart disease, and lead to increased hospitalizations and premature deaths. I also understand that nitrogen oxide contributes to ozone (or smog) formation, which also causes respiratory illness and premature deaths from heart and lung disease. Researchers have documented numerous deaths, heart attacks, asthma attacks, and other harmful effects from particulate matter pollution from the country's coal plants, including River Rouge. Because I am over the age of 65, I know that I am at a greater risk from the harmful impacts of air pollution from power plants.

11. I have asthma, for which I regularly use an inhaler and take medication when my symptoms worsen. I regularly check the news for ozone levels, and refrain from spending time outdoors when air quality is bad. Due to poor air quality, I rarely open the windows of my house. I have to use a central air system, which I do not like, to help with air circulation and to manage my respiratory problems. I have flower and vegetable gardens, but do not tend to them as much as I would like to because I am concerned about air pollution.

12. I also frequently smell foul odors in my neighborhood, which I believe are primarily due to all of the industrial activity in the area. The smell of kerosene and rotten eggs discourages me from spending time outdoors. The odors are especially

strong when driving on the nearby I-75, a major north to south Interstate Highway. The stench fills my car even when the windows are closed and can linger for days.

13. Additionally, when driving south on Schaefer heading towards South Fort Street and passing the Marathon HOUP, even closing the car windows, the odor is unbearable. Residents who live east of Schaefer between Pleasant Street, Bassett Street and Liebold Streets bear the brunt of the Marathon odors in the 48217 community.

14. Last year my granddaughter moved from East Detroit to River Rouge, to a house less than two miles from DTE's River Rouge coal-fired power plant. Shortly after she moved, her five-year-old son developed a cough and asthma. My granddaughter now has to regularly monitor his breathing.

15. I am aware that increasing temperature from extreme heat events can prolong the allergy season, worsening asthma and other respiratory illnesses. I understand that children and the elderly are among the most vulnerable to these climate-related health effects. I am very concerned about these impacts on my health, and the health of my great grandson and community.

16. I believe that sulfur dioxide, nitrogen oxide, and particulate matter pollution from coal plants and other industrial facilities harm my health, and the health of my family and community. I worry about the negative impacts of continued exposure to this pollution.

17. I understand that the U.S. Environmental Protection Agency (EPA) recently finalized the Clean Power Plan, a new rule under section 111(d) of the Clean Air Act that, when implemented by the states or EPA, will significantly limit the amount of carbon dioxide pollution from existing fossil fuel-fired power plants. I understand that reducing carbon dioxide emissions will help curb climate change and lower climate change-related risks.

18. In addition, I understand that the Clean Power Plan will have substantial public health benefits because, by decreasing carbon pollution, power plants will also reduce smog- and soot-forming pollutants such as sulfur dioxide, nitrogen oxides, and fine particulate matter emissions. I am aware that EPA has estimated that the rule will substantially reduce these pollutants nationwide. I understand that cutting emissions of these pollutants will help lower the rates of asthma, respiratory diseases, heart attacks, and premature deaths that occur each year because of smog and soot. I believe that this reduction in air pollution will help to protect my health and the health of my family and community. It will also allow me to spend more time outdoors in my garden, adding to my quality of life.

19. I understand that the Clean Power Plan requires states to ensure that communities of color and low-income communities participate meaningfully in the preparation of state plans required to implement the rule, so that these communities suffer no local impacts from the increased operation of fossil fuel-fired plants and

also receive the benefits from reduced pollution, which I believe will help improve air quality in Wayne County. I believe this rule is a critical tool in advocating for environmental justice, and I look forward to participating in this process to help bring awareness to the community's concerns about air pollution.

20. I am also aware that EPA recently finalized carbon pollution standards for new fossil fuel-fired power plants under section 111(b) of the Clean Air Act. The carbon pollution standards ensure that any new coal-fired power plants will be required to meet strict limits for their CO₂ emissions, and also pave the way for the Clean Power Plan.

21. If the Clean Power Plan and carbon pollution standards are implemented according to EPA's instructions, I will benefit from the emission reductions they will achieve. The rules will curb emissions of carbon, as well as particulate matter, sulfur dioxide, and nitrogen oxides, helping to protect my health, my family's health, public health, and the environment. On the other hand, if these rules are stopped or delayed, I will suffer an injury by being deprived of the rules' benefits in reduced air pollution and improved public health.

22. If any legal challenges against the Clean Power Plan or the carbon pollution standards succeed in halting it, weakening it, or delaying the implementation of the rules, my family, community, and I will be injured for the reasons discussed above.

I therefore strongly support efforts by the Sierra Club to defend the rules' legality in court.

I certify, under penalty of perjury, that the foregoing is true and correct.

Executed on October 17, 2015.


Dolores V. Leonard, Ed.D., NCC, LPC

Exhibit R

Declaration of Joanne Pannone

DECLARATION OF JOANNE PANNONE

I, Joanne Pannone, declare as follows:

1. My name is Joanne Pannone. I am over 18 years of age and competent to give this declaration. All information herein is based on my own personal knowledge unless otherwise indicated.
2. I live in Mercer County, New Jersey. My current address is 215 Meadowbrook Road, Robbinsville, New Jersey 08691. I have lived at this address for 28 years.
3. I am a member of the Sierra Club. I joined the Sierra Club in November 2008. I joined the Sierra Club to help bring awareness to environmental problems such as Marcellus Shale fracking and the air and water quality impacts from nuclear and coal-fired power plants in my area.
4. The Sierra Club is a nationwide non-profit environmental membership organization, which has its purpose to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives.
5. I live approximately 13 miles from PSEG's Mercer Generating Station, a coal-fired power plant located on the Delaware River.

6. I have two grandchildren, aged 10 and 12, and I frequently babysit them while their parents work. My grandchildren spend large portions of the summer with me and I love to spend time outdoors. Both of my grandchildren suffer from asthma. I also live with my mother, who is a non-smoker and suffers from chronic obstructive pulmonary disease (COPD).

7. I am a Wildlife Conservation Corps Volunteer. I have an interest in birds, fish, wildlife and the outdoors. I am also a beekeeper, and have kept bees on my property for the past five years. I also volunteered for six years at the New Jersey Division of Fish and Wildlife's Pequest Trout Hatchery and Natural Resource Education Center, where I taught school-aged children how to fish.

8. I enjoy paddling trips on the Delaware River and overnight camping trips near the river with friends. I am a member of Delaware Riverkeeper Network, an organization dedicated to raising awareness and protecting the river's watershed. I am also a member of the Society for the Education of American Sailors (SEAS) and enjoying sailing on the Navesink River in Monmouth County.

9. I also frequently take beach trips with my grandchildren to Barnegat Bay in Ocean County. During the summer, we go to the beach as often as three times a month. We also visit the area during winter months to see the seals in Sandy Hook that migrate from the North.

10. I am aware that coal-fired power plants, such as the Mercer Generating Station, emit sulfur dioxide and particulate matter pollution that are linked to heart problems, bronchitis cases, and asthma episodes.

11. I believe that sulfur dioxide and particulate matter pollution from the coal-fired Mercer Generating Station harms me and my family. Several times a year, I take my grandchildren to the Abbott Marshlands in Bordentown to hike and view wildlife. The park is located near the Mercer coal plant, and on more than one occasion, we had to leave early when one of my grandchildren began having signs of an impending asthma attack—reddening eyes and difficulty breathing. My grandchildren have suffered from similar symptoms when visiting the Pequest Center. I worry about the negative impacts of continued exposure to this pollution on my health and the health of my grandchildren. If these problems persist, I will be unable to visit and enjoy these places with my grandchildren in the future.

12. I also understand that fossil fuel-fired power plants emit approximately 37% of domestic carbon dioxide emissions, making them the largest single source category of greenhouse gas pollution that drives climate change.

13. I am concerned about the impacts of climate change on my family, the community, public health, and the environment. I understand that climate change is increasing the intensity and frequency of extreme weather events. I am aware that increased coastal storms and storm surges due to sea level rise (also attributable to

climate change) are expected to cause increased drowning and other public health impacts. I understand that children and the elderly are among the most vulnerable to these climate-related health effects.

14. The state of New Jersey is already coping with the negative effects of climate change. I live in the Assunpink Creek watershed. In the late 1960s, the state built a number of dams to prevent flooding in Trenton and the surrounding area. During Hurricane Irene, the dams failed to prevent flooding of the Delaware River and other waterways. Nearby farmlands and tree stands were greatly harmed, residents of Mercer County faced power and water shortages, while some were forced to evacuate their homes. Hurricane Sandy also took a toll on the Trenton area, with fires, power outages, and tree loss. My property sits across the street from a tree preserve, and we lost a lot of trees during these storms, including some that fell into my driveway. These extreme weather events are scary experiences and cause me to fear for the safety of my family and community. I also still suffer aesthetic harm from the tree loss in my neighborhood.

15. I am concerned that sea level rise and future extreme weather events will further harm coastal communities that are still recovering from the devastating impacts of Hurricane Sandy. I also worry that these events will prevent me from visiting the coastal areas where I enjoy recreating with my family.

16. I am also concerned about the impacts of climate change on wildlife, particularly on the bees I keep on my property. I am aware that extreme temperatures attributable to climate change jeopardize the livelihood of bee populations. I am also aware that warmer climates are causing an increase in pests and pesticide use, which pose a serious risk to bees and their habitat. I am concerned that extreme weather events are harming bee populations. For example, some of the trees lost near my house in the wake of the hurricanes were swamp maples—the earliest trees to bud in the area, located along the bees’ route from their hives to my property.

17. I understand that the U.S. Environmental Protection Agency (EPA) recently finalized a new rule under section 111(d) of the Clean Air Act that, when implemented by states and/or EPA, will significantly limit the amount of carbon dioxide pollution from existing fossil fuel-fired power plants. I understand that reducing carbon dioxide emissions will help curb the effects of climate change and lower the risks of extreme temperatures and weather events, improving conditions for my family, communities (both inland and on the coast), wildlife, and the environment.

18. In addition, I understand that the 111(d) rule will have substantial public health co-benefits by reducing smog- and soot-forming pollutants such as sulfur dioxide, nitrogen oxides, and fine particulate matter from these power plants. I am

aware that EPA predicts that the 111(d) rule will substantially reduce these emissions nationwide. I understand that cutting emissions of these pollutants will lower the rates of asthma attack, respiratory disease, heart attack, and premature death that occur each year as a result of atmospheric smog and soot. I believe that this reduction in air pollution will help to protect my health and the health of my grandchildren, mother, and community. It will also allow me to continue recreating in the area with my friends and family.

19. I also understand that EPA has finalized carbon pollution standards for new fossil fuel-fired power plants under section 111(b) of the Clean Air Act. This rule ensures that any new coal-fired power plants will be required to meet strict limits for their carbon dioxide emissions, and also paves the way for the 111(d) rule.

20. If the final 111(d) and (b) rules are implemented according to EPA's instructions, I and my family will benefit from the pollution reductions they will achieve. On the other hand, if either rule is stopped or delayed, I will suffer an injury by being deprived of some or all of the rules' benefits.

21. If any legal challenges against the final 111(d) or 111(b) rules succeed in halting, weakening, or delaying the implementation of either or both of those rules, my family and I will be injured for the reasons discussed above. I therefore support efforts by the Sierra Club to defend the rules' legality in court.

I certify, under penalty of perjury, that the foregoing is true and correct.

Executed on October 7th, 2015.

Joanne Pannone
Joanne Pannone