UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

ENVIRONMENTAL INTEGRITY PROJECT,
1000 Vermont Ave, NW, Suite 1100
Washington, DC 20005,

CHESAPEAKE CLIMATE ACTION NETWORK,
6930 Carroll Avenue, Suite 720
Takoma Park, MD 20912, and

SIERRA CLUB,
2101 Webster Street, Suite 1300,
Oakland, CA 94612

Plaintiffs,

v.

MICHAEL REGAN, in his official capacity as Administrator, U.S. Environmental Protection Agency,
Office of the Administrator,
Mail Code 1101A
1200 Pennsylvania Ave, NW
Washington, DC 20460,

Defendant.

Case No. _____

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

INTRODUCTION

1. Plaintiffs Chesapeake Climate Action Network, Environmental Integrity Project, and Sierra Club (collectively, "Plaintiffs") bring this action pursuant to section 304(a)(2) of the Clean Air Act, 42 U.S.C. § 7604(a)(2), to compel Defendant Michael Regan, Administrator of the United States Environmental Protection Agency ("EPA" or

"Agency"), to perform the nondiscretionary duties required by Clean Air Act section 130, 42 U.S.C. § 7430. Under this section, the Administrator must review and, if necessary, revise the methods used to estimate emissions of volatile organic compounds ("VOC"), carbon monoxide ("CO"), and oxides of nitrogen ("NOx") for emission sources at least once every three years.

2. In 1998, EPA issued a set of methods for estimating emissions of VOC, CO, NOx, and other pollutants from municipal solid waste landfills. In 2008, the Agency proposed to revise the 1998 methods, expressly acknowledging that they are inaccurate in ways that tend to underestimate emissions. However, EPA never finalized its proposed changes to the 1998 methods for estimating municipal solid waste landfill emissions nor did it make a determination that revision of these methods is not warranted.

3. Under EPA regulations and guidance, these inaccurate methods from 1998 may still be used to develop pollution estimates that are used in important regulatory decisions about whether and how to control emissions. Among other things, these estimates are used in state and regional emission inventories, which are "typically the first part of the development of a regional or national control strategy to reduce area-wide emissions. These inventories are important tools in air quality management because they are used to estimate [levels of pollution in the air that people breathe]; to model pollutant dispersion and transport in the atmosphere; and to develop and assess control strategies." U.S. Env't Prot. Agency, EPA-453/B-21-001, *Recommended Procedures for Development of Emission Factors and Use of the WebFIRE Database*, 4-1 (2021), https://www.epa.gov/system/files/documents/2021-11/final-webfire-procedures-document_nov-2021.pdf [hereinafter Recommended Procedures].

4. The Agency has not reviewed or revised the 1998 methods for estimating landfill emissions of VOC, CO, and NOx in accordance with its duty under Section 130 of the Clean Air Act, which mandates action at least every three years. The current methods for estimating emissions from municipal solid waste landfills are 24 years old, and EPA has acknowledged that they are flawed. In addition, recent scientific studies have shown that these methods tend to underestimate emissions from municipal solid waste landfills.

5. Municipal solid waste landfills emit health-harming pollutants that pose risks to nearby communities as well as greenhouse gases, which warm the planet, disrupting weather patterns and other natural processes in increasingly noticeable ways. EPA's flawed methods for estimating emissions from landfills prevents decision makers and the public from understanding the full magnitude of these emissions and can allow operators of individual landfills to avoid pollution control requirements under the Clean Air Act.

6. Accordingly, Plaintiffs seek a determination that the Administrator's failure to perform the actions required by Section 130 violates the Clean Air Act and an order compelling the Administrator to fulfill its duty and take such action in accordance with an expeditious deadline set by this court.

JURISDICTION AND VENUE

7. This Court has jurisdiction over this action pursuant to 42 U.S.C. § 7604(a)(2) (action arising under the Clean Air Act citizen suit provision), 28 U.S.C. § 1331 (federal question), and 28 U.S.C. § 1361 (mandamus). This Court may order the Administrator to perform the requisite acts and duties, may issue a declaratory judgment, and may grant further relief pursuant to 42 U.S.C. § 7604(a), (d) and 28 U.S.C. §§ 2201-

2202.

8. Pursuant to section 304(a) of the Clean Air Act, 42 U.S.C. § 7604(a), "the district courts shall have jurisdiction . . . to order the Administrator to perform such act or duty [which is not discretionary]."

9. Plaintiffs have a right to bring this action pursuant to section 304(a)(2) of the Clean Air Act, 42 U.S.C. § 7604(a)(2).

10. By certified letter posted December 9, 2021, Plaintiffs sent Administrator Regan written Notice of Intent to Sue ("Notice") and have thereby complied with the notice requirements of section 304(b)(2) of the Clean Air Act, 42 U.S.C. § 7604(b)(2), and 40 C.F.R. pt. 54. More than 60 days have passed since Plaintiffs provided Notice. The Administrator has not remedied the alleged violations. Therefore, an actual controversy exists between the parties. The Notice is attached as Exhibit A.

11. Venue is vested in this Court under 28 U.S.C. § 1391(e) because a substantial part of the events or omissions giving rise to the claim occurred in this district and the Administrator's office is in the District of Columbia.

PARTIES

Chesapeake Climate Action Network

12. Plaintiff Chesapeake Climate Action Network ("CCAN") is a grassroots non-profit organization dedicated to fighting for bold and just solutions to climate change in the mid-Atlantic region, specifically Maryland, Virginia, and Washington, D.C. CCAN's mission is to build a movement powerful enough to put the mid-Atlantic region on the path to climate stability, while inspiring action in neighboring states, around the country, and across the world. This mission includes ensuring that significant sources of

air pollution, like municipal solid waste landfills, do not impact the health and well-being of CCAN's members or the environment by emitting dangerous pollutants. CCAN represents approximately 108,600 members, including 24,300 in Maryland, 24,900 in Virginia, 7,100 in the District of Columbia, and 600 in West Virginia.

13. CCAN has members who live, work, and raise families in close proximity to municipal solid waste landfills. Some of these members farm and raise crops on their properties in close proximity to landfills, including as a primary source of income. These members worry about the effects of landfill emissions of VOC and NOx, as well as ground-level ozone, which forms when VOC and NOx combine in the presence of sunlight. They worry about the effects of these pollutants on their own health and the health of their families. They worry about the effects of ozone, which can damage plant tissue, on their crops. They change their behavior in order to reduce their exposure to air pollution from landfills. Some of these members live in areas that have been classified by the EPA as "nonattainment areas" for ozone, meaning that they do not meet federal air quality standards for this pollutant.

14. These concerns are increased by the knowledge that EPA's methods for estimating municipal solid waste landfill emissions are likely underestimating emissions of VOC and other pollutants, which likely allows some landfills to escape pollution control requirements prescribed under the Clean Air Act. These concerns reduce CCAN's members' enjoyment of their properties and their day-to-day activities.

Environmental Integrity Project

15. Plaintiff Environmental Integrity Project ("EIP") is a national non-profit organization based in Washington, D.C., dedicated to ensuring the effective enforcement of state and federal environmental laws in order to protect public health and the environment. EIP

has three goals: (1) to provide objective analyses of how the failure to enforce or implement environmental laws increases pollution and affects public health; (2) to hold federal and state agencies, as well as individual corporations, accountable for failing to enforce or comply with environmental laws; and (3) to help local communities obtain the protection of environmental laws.

16. EIP has a specific focus on the Clean Air Act and on large stationary sources of air pollution, like municipal solid waste landfills, because of their significant impacts on public health and the environment. EIP has invested significant time and effort through various activities to inform the public about the effects of emissions from large air pollution sources, including municipal solid waste landfills. EIP researches, writes, and publishes detailed reports that include analyses of emissions and other data for the purpose of educating the general public about pollution. EIP also works with community groups and residents living in areas near large air pollution sources, including municipal solid waste landfills, to provide education and information about local sources of pollution.

17. EIP regularly participates in permitting and regulatory processes intended to ensure control of air pollution from large sources like landfills, including processes for issuing permits under the Clean Air Act Prevention of Significant Deterioration Program and regulations to set protective emissions standards and bring areas that do not meet air quality standards for ozone into compliance with these standards. EIP regularly submits written comments of a legal, factual, and technical nature during the public comment periods that regulatory agencies are required to hold as part of these processes.

18. EPA's failure to review and, if necessary, revise its 1998 methods for estimating municipal solid waste landfill emissions in accordance with the schedule mandated under

section 130 of the Clean Air Act deprives EIP of accurate information about emissions from municipal solid waste landfills. This harms EIP's organizational interests and activities by preventing or hindering EIP from informing community-based partners about the air pollution emitted by specific landfills located near their neighborhoods as well as preventing or hindering EIP from informing the general public about emissions from municipal solid waste landfills on a national scale. EIP has expended resources, including staff time, trying to determine the true quantity of emissions from municipal waste landfills because of EPA's failure to update and correct its methods for estimating these emissions.

19. EPA's failure to comply with its statutory duty to review and, if necessary, revise its methods for estimating municipal solid waste landfill emissions every three years also harms EIP's organizational interests and activities by making it more difficult for EIP to analyze whether landfills are meeting legal requirements under the Clean Air Act, including permit and regulatory requirements.

Sierra Club

20. Plaintiff Sierra Club is the oldest and largest grassroots environmental group in the United States, with over 830,000 members nationally. 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 resources and ecosystems; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful meansto carry out these objectives. Sierra Club and its members are greatly concerned about the effects of air pollution on human health and the environment and have a long history of participating in activities related to air quality and permitting of air pollution sources under the Clean Air Act. Sierra Club has members who live and recreate in the vicinity of municipal solid waste landfills and

are harmed by emissions of VOC and other pollutants from these landfills.

21. EPA's failure to review and revise as necessary its methods for estimating municipal solid waste landfill emissions deprives Sierra Club of accurate and reliable information about emissions from municipal solid waste landfills. This harms Sierra Club's organizational interests and activities by reducing Sierra Club's ability to provide information and advice to local activists to assist with efforts to reduce or prevent air pollution from specific facilities. The lack of reliable emissions information also harms Sierra Club by reducing its ability to prioritize among potential advocacy projects. Sierra Club frequently prioritizes projects based on the quantity of air pollution emitted by a type or category of facility and the health risks associated with that pollution.

Plaintiffs Collectively

22. Plaintiffs are "person[s]" within the meaning of 42 U.S.C. § 7602(e), who may commence a civil action pursuant to the Clean Air Act. 42 U.S.C. § 7604(a). Plaintiffs sue on behalf of themselves and their individual members, including their members who live, work, travel, and/or recreate in the vicinity of municipal solid waste landfills.

23. Administrator Regan's acts and omissions injure Plaintiffs and their members by threatening their health and welfare, by diminishing their enjoyment of their property, day-to-day activities, and other interests, and by denying them measures and procedures provided under the Clean Air Act to protect their health and welfare from air pollution in places where they live, work, raise crops, and conduct other activities.

24. EPA's failure to complete a review on the schedule mandated by the Clean Air Act further deprives Plaintiffs of an opportunity to redress this harm by seeking judicial review of a final determination on the final methods. If EPA were to finalize inadequate methods for

estimating landfill emissions or determine that revision of the methods is not warranted, Plaintiffs would have the right to seek judicial review of such a decision under section 307(b)(1) of the Clean Air Act. 42 U.S.C. § 7607(b)(1). EPA's failure to act deprives Plaintiffs of an avenue of redress.

25. As explained by EPA, the Agency notifies members of the public about opportunities to comment on some draft revised methods via an email listserv and provides a 60-day period for the public to review and comment on draft factors. Recommended Procedures, at 11-3.

26. Upon information and belief, EPA has not completed a review of its 1998 methods for estimating landfill emissions, meaning a process that results in revision of the methods or a decision that revision is not warranted, in over two decades. Therefore, EPA's failure to timely complete a review, including, if necessary, revision of the methods for estimating landfill emissions, harms Plaintiffs and their members by depriving them of the opportunity to comment on any proposed revisions or seek judicial review of EPA's determination that revision of the methods is not warranted.

27. The Clean Air Act violations alleged in this Complaint have injured and will continue to injure Plaintiffs and their members, unless and until this Court grants the requested relief. Granting the relief requested in this Complaint would redress these injuries by compelling EPA to perform its mandatory duty to complete a review and, if necessary, revise the 1998 methods for estimating VOC, CO, and NOx emissions from municipal solid waste landfills.

28. EPA has previously found that the methods it finalized in 1998 for estimating landfill emissions are inaccurate in ways that tend to underestimate emissions. In addition,

recent scientific studies show that similar methods underestimate landfill emissions. Given these facts, it is likely that, upon review, EPA would determine that it is necessary to revise the methods for estimating VOC, CO, and NOx emissions from municipal solid waste landfills and then revise them. The revised methods would likely increase estimated emissions for multiple pollutants, including VOC, which would subject some landfills to additional pollution control requirements under the Clean Air Act.

29. In the alternative scenario, EPA would conclude its review by determining that revision is not warranted and Plaintiffs could seek judicial review of that decision.

30. EPA's failure to comply with its mandatory duty under the Clean Air Act prevents Plaintiffs and their members from challenging an unfavorable EPA decision on the methods for estimating landfill emissions or enjoying the air quality and other benefits of a favorable decision.

LEGAL BACKGROUND

31. The Clean Air Act was established "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population" and "to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution." 42 U.S.C. § 7401(b).

32. A "primary goal" of the Clean Air Act is "pollution prevention." 42 U.S.C. § 7401(c).

33. As part of the regulatory framework prescribed by the Clean Air Act to accomplish these objectives, EPA must establish "methods ('emission factors') used…to estimate the quantity of emissions of . . . [VOC, CO, and NOx] . . . from sources of such air pollutants." 42 U.S.C. § 7430.

34. EPA must periodically review and revise these methods. Section 130 provides that "at least every 3 years [after Nov. 15, 1990], the Administrator *shall* review and, if necessary, revise, the methods ('emission factors') used for purposes of [the Clean Air Act] to estimate the quantity of emissions of . . . [VOC, CO, and NOx] . . . from sources of such air pollutants." *Id.* (emphasis added). Section 130 requires that the Administrator complete a review by either making a formal determination that revision is not warranted or revising the methods for estimating VOC, CO, and NOx emissions within the statutory deadline. *See id.*

FACTUAL BACKGROUND

The AP-42 Methods for Estimating Emissions from Municipal Solid Waste Landfills

35. EPA maintains a compendium of methods used to estimate emissions from a variety of sources called the AP-42 Compilation of Air Emission Factors ("AP-42 Compilation"), which the Agency describes as "the principal means by which [EPA's emission factor and inventory group] can document its emission factors." 1 U.S. Env't Prot. Agency, *AP-42 Compilation of Air Pollutant Emissions* 1 (5th ed. 1995), https://www.epa.gov/sites/default/files/2020-09/documents/c00s00.pdf.

36. Within the AP-42 Compilation, the methods for estimating emissions from municipal solid waste landfills are set forth in Section 2.4 (Municipal Solid Waste Landfills) within Chapter 2 (Solid Waste) of Volume I. The final version of this section was issued in 1998. 1 U.S. Env't Prot. Agency, *AP-42 Compilation of Air Pollutant Emissions*, Ch. 2.4 (5th ed. 1998), https://www.epa.gov/sites/default/files/2020-10/documents/c02s04.pdf. The 1998 final version of Section 2.4 of the AP-42 Compilation is hereinafter referred to as the "1998 Methods."

37. The 1998 Methods set forth a series of steps that are used to estimate VOC and CO emissions from landfills. *Id.* at 2.4-3 to 2.4-12. This includes multiple equations as well as values for use in those equations. *Id.*

38. In 2008, EPA issued a draft update to Section 2.4 of the AP-42 Compilation that included several proposed revisions to the methods for estimating emissions from municipal solid waste landfills. 1 U.S. Env't Prot. Agency, *AP-42 Draft Compilation of Air Pollutant Emissions*, Ch. 2.4 (5th ed. 2008), https://www.epa.gov/sites/default/files/2020-10/documents/d02s04_0.pdf [hereinafter Draft 2008 Methods]. The Draft 2008 Methods are attached as Exhibit B.

39. Among the revisions that EPA proposed in the Draft 2008 Methods were changes that, when implemented, result in higher emission estimates for many pollutants, including VOC and CO.

40. One revision proposed by EPA in the Draft 2008 Methods was the addition of a factor of 1.3 to Equation 1, which is the first equation that is used to calculate VOC and CO emissions. *Id.* at 2.4-4 to 2.4-5. In other words, EPA proposed to update this initial equation by adding a multiplier of 1.3.

41. This multiplier was proposed because the 1998 Methods contain a default value for one of the variables in Equation 1 that is based on the incorrect assumption that landfill gas collection systems collect 100% of landfill gas. *Id.* at 2.4-5.

42. EPA's 2008 proposal to add a 1.3 multiplier to Equation 1 was based on the finding that it was more appropriate to treat landfill gas collection systems as collecting 75% of landfill gas. *Id*. The 1.3 multiplier adjusted for the lower collection efficiency. *Id.*

43. Equation 1 is the first step in a series of steps that is used in the 1998

Methods to calculate emissions of many pollutants, including VOC and CO. Therefore, inclusion of a 1.3 multiplier in this equation would increase estimates of VOC, CO, and other emissions from municipal solid waste landfills if all else remained the same.

44. The variable in Equation 1 that incorporates these assumptions about collection efficiency is referred to as L_o in the 1998 Methods. 1998 Methods, at 2.4-3 to 2.4-4. It is referred to hereinafter as the Methane Generation Variable.

45. When following the 1998 Methods, VOC and CO emissions cannot be estimated without using the Methane Generation Variable.

46. In the Draft 2008 Methods, for a subset of landfills, EPA also proposed to increase the default concentration value of VOC in landfill gas. Draft 2008 Methods, at 2.4-13, 2.4-18. For these landfills, use of the higher value that EPA proposed in 2008 would result in significantly increased VOC emission estimates, if all else remained the same, when compared to estimates produced using the 1998 Methods.

47. EPA never finalized the revisions that it proposed in the Draft 2008 Methods, and they remain in draft form. Nor has the Agency withdrawn its proposal and made a determination that revision of the 1998 Methods is not warranted.

48. Based on Plaintiffs' review of publicly available records, EPA has not revised or completed a review of the 1998 Methods for estimating VOC, CO, or NOx from landfills since 1998.

49. EPA has not completed the statutorily mandated review of the methods for estimating VOC, CO, and NOx emissions from municipal solid waste landfills within the last three years, as required, by (1) revising the methods; or (2) determining that revision is not warranted.

How the 1998 Methods are Used

50. EPA allows regulators and landfill operators to use the 1998 Methods to develop emission estimates that are used in official decisions, including decisions about air pollution control strategies and whether new pollution control systems are required.

51. EPA allows state environmental agencies to use the 1998 Methods in the development of state emission inventories. *See, e.g.,* Recommended Procedures, at 4-1.

52. Further, state environmental agencies use the 1998 Methods in the development of state emission inventories. *See, e.g.* Md. Dep't of the Env't, *2015 Ozone [National Ambient Air Quality Standards State Implementation Plan] Emissions Inventory Methodology for Maryland Marginal Nonattainment Areas* 139 (May 26, 2020), https://mde.maryland.gov/programs/air/AirQualityPlanning/Documents/SIPDocuments/Inventories/Washington/AppendixB1b.pdf.

53. "Governments use emission inventories to help determine significant sources of air pollutants and to target regulatory actions. Emissions inventories are an essential input to mathematical models that estimate air quality. The effect on air quality of potential regulatory actions can be predicted by applying estimated emissions reductions to emissions inventory data in air quality models." *Managing Air Quality – Emissions Inventorie*s, U.S. Env't Prot. Agency, https://www.epa.gov/air-quality-management-process/managing-air-quality-emissions-inventories#:~:text=the%20United%20States%3F-,How%20Does%20an%20Emissions%20Inventory%20Contribute%20to%20the%20Air%20Quality,models%20that%20estimate%20air%20quality (last visited July 24, 2022).

54. EPA also allows use of the 1998 Methods in some decisions regarding whether pollution controls must be installed under section 165 of the Clean Air Act (Prevention of Significant Deterioration). *See*, *e.g.*, 40 C.F.R. § 60.764(c) ("When calculating emissions for Prevention of Significant Deterioration purposes, the owner or operator of each . . . landfill subject to the provisions of this subpart must estimate the [Non-Methane Organic Compound] emission rate for comparison to the Prevention of Significant Deterioration major source and significance levels in §§ 51.166 or 52.21 of this chapter using Compilation of Air Pollutant Emission Factors, Volume I: Stationary Point and Area Sources (AP– 42) or other approved measurement procedures.")

55. Upon information and belief, state regulators and landfill operators often, if not always, estimate emissions for purposes of these decisions by using an online EPA calculation tool called the Landfill Gas Emissions Model ("LandGEM").

56. LandGEM allows the user to choose from among two sets of default inputs or, for certain parameters, to enter site-specific inputs. One set of default values is based on the 1998 Methods. Amy Alexander et al., U.S. Env't Prot. Agency, EPA-600/R-05/047, *Landfill Gas Emissions Model (LandGEM) Version 3.02 User's Guide* 1-2 (2005), https://nepis.epa.gov/Exe/ZyPDF.cgi/P1009C8L.PDF?Dockey=P1009C8L.PDF, https://view.officeapps.live.com/op/view.aspx?src=https://www.epa.gov/sites/default/files/2020-06/landgem-v303.xlsm&wdOrigin=BROWSELINK [hereinafter Model Version 3.02 User's Guide]. EPA's instructions state that users may select the defaults based on the 1998 Methods "to generate emission estimates for use in emission inventories and air permits in the absence of site-specific test data." *Id*.

57. For the set of defaults based on the AP-42 Compilation, LandGEM includes the Methane Generation Variable default value from the 1998 Methods despite EPA's

subsequent conclusion that this value is inaccurate. *See id.* at 6-8; U.S. Env't Prot. Agency, *Landfill Gas Emissions Model (LandGEM) Version 3.03* (2020), https://www.epa.gov/catc/clean-air-technology-center-products#software (follow "Landfill Gas Emissions Model (LandGEM)" hyperlink).

58. Use of the 1998 Methods, which likely underestimate emissions, in permitting decisions and the creation of emission inventories likely causes regulators to undercount or under-control emissions from municipal solid waste landfills.

Effects of VOC, CO, and NOx Emissions

59. NOx emissions endanger human health and the environment. NOx emissions contribute to the formation of other pollutants in the ambient (outdoor) air, including ozone and fine particles, that can have harmful effects on human health. Fine particles have been linked to premature death from heart and lung disease. *See generally* U.S. Env't Prot. Agency, *Expert Opinions on the Existence of a Threshold in the Concentration Response Function for PM2.5-related Mortality: Technical Support Document* (2010), http://www3.epa.gov/ttnecas1/regdata/Benefits/thresholdstsd.pdf.

60. VOC are substances that readily vaporize into the air, and include gaseous hydrocarbons and partially oxidized hydrocarbons. Some VOCs are toxic pollutants, such as benzene, a known carcinogen that is emitted by municipal solid waste landfills. Agency for Toxic Substances & Disease Registry, *Landfill Gas Primer: An Overview for Environmental Health Professionals* 3 (2001), https://www.atsdr.cdc.gov/HAC/landfill/PDFs/Landfill_2001_ch2mod.pdf.

61. VOC and NOx also combine in a light-induced chemical reaction to produce ground-level ozone. Ozone is a criteria pollutant known to endanger public health and the

environment. Ozone can "[i]nflame and damage the airways[,] [m]ake the lungs more susceptible to infection[,] [a]ggravate lung diseases such as asthma, emphysema, and chronic bronchitis[,[[and] [i]ncrease the frequency of asthma attacks." *Ground-level Ozone Pollution, Health Effects of Ozone Pollution*, U.S. Env't Prot. Agency, https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution. "Long-term exposure to ozone . . . is likely to be one of many causes of asthma development. Studies in locations with elevated concentrations also report associations of ozone with deaths from respiratory causes." *Id*.

62. Ozone can also damage plant tissue. "Ozone causes considerable damage to plants around the world, including agricultural crops and plants in natural ecosystems." *Ozone Effects on Plants*, Nat'l Park Serv., https://www.nps.gov/subjects/air/nature-ozone.htm#:~:text=Ozone%20causes%20considerable%20damage%20to,leaves%20and%20causes%20reduced%20survival (last visited July 24, 2022).

63. CO is a gas that, at elevated concentrations in the outdoor air, can pose risks to people with some types of heart disease by exacerbating reduced blood flow to the heart and causing chest pain. *Basic Information about Carbon Monoxide (CO) Outdoor Air Pollution*, U.S. Env't Prot. Agency, https://www.epa.gov/c o-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution#Effects (last visited July 24, 2022).

64. As EPA itself has acknowledged, estimates derived from the 1998 Methods likely significantly undercount emissions, potentially exposing communities to excess levels of VOC, CO, and NOx that are prohibited by law and causing significant adverse health effects and other grave risks. These effects are the result of EPA's failure to comply with its mandatory duty under section 130 of the Clean Air Act to review and, if necessary, revise

these methods at least every three years.

65. As part of this review, EPA must review the value it finalized in the 1998 Methods for the Methane Generation Variable. As explained above in paragraphs 40 to 45, it is not possible to estimate VOC or CO emissions following the 1998 Methods without using the Methane Generation Variable. But the default value set forth in the 1998 Methods for this variable underestimates emissions because it is based on an assumption that EPA has acknowledged is incorrect: that landfill gas collection systems collect 100% of landfill gas.

66. In addition, several recent scientific studies based on direct measurement of landfill emissions show that the 1998 Methods and similar methods tend to underestimate emissions, as explained on pages 5-8 of Plaintiffs' December 9, 2021 Notice. Ex. A.

67. Notwithstanding the poor quality of the 1998 Methods for estimating emissions from municipal solid waste landfills, the Administrator has failed to complete a review and make necessary revisions of these methods since 1998. The Clean Air Act requires the Administrator to do so at least once every three years for emissions of VOC, CO, and NOx. In light of EPA's longstanding failure to act, Plaintiffs issued a notice of intent to sue EPA for failure to comply with its statutory duties under section 130 of the Clean Air Act on December 9, 2021. *See* Ex. A.

CAUSE OF ACTION

68. Plaintiffs re-allege and incorporate the allegations of all foregoing paragraphs.

69. Pursuant to section 130 of the Clean Air Act, the Administrator has a nondiscretionary and continuing duty to review and, if necessary, revise methods for

estimating emissions of VOC, CO, and NOx at least every three years. 42 U.S.C. § 7430.

70. This statutory duty applies to each and every method set forth in the 1998 Methods for estimating VOC, CO, or NOx emissions from landfills, including but not limited to the default value for the Methane Generation Variable. *Id.*

71. The Administrator has not completed the statutorily mandated review of the 1998 Methods for estimating VOC, CO, and NOx emissions from landfills, including but not limited to the default value for the Methane Generation Variable, within the last three years by either revising those methods or determining that revision is not warranted.

72. The Administrator's ongoing failure to complete this mandatory review within the three-year statutory deadline constitutes a "failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator." 42 U.S.C. § 7604(a)(2).

PRAYER FOR RELIEF

WHEREFORE, Plaintiffs respectfully request that this Court:

A. Declare that the Administrator's failure to complete a review of the 1998 Methods for estimating landfill emissions of VOC, CO, and NOx - including but not limited to the default value for the Methane Generation Variable – and revise the methods if necessary within the required time frame constitutes a "failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator" within the meaning of section 304(a)(2) of the Clean Air Act, 42 U.S.C. § 7604(a)(2);

B. Order the Administrator to complete the required review of the 1998 Methods for estimating landfill emissions of VOC, CO, and NOx in their entirety, including but not limited to the default value for the Methane Generation Variable, by either revising those

methods or making a final determination that such revision is not warranted, pursuant to section 130 of the Clean Air Act, 42 U.S.C. § 7430, in accordance with an expeditious deadline specified by this Court;

D. Retain jurisdiction of this action to ensure compliance with this Court's decree;

D. Award Plaintiffs the costs of this action, including reasonable attorneys' fees; and

E. Grant such other relief as the Court deems just and proper.

DATED: July 29, 2022

ATTORNEY OF RECORD

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