ORAL ARGUMENT NOT YET SCHEDULED

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

No. 11-1125 (and consolidated cases)

AMERICAN FOREST & PAPER ASSOCIATION, *et al.*,
Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY,
Respondent.

Petition for Review of Final Administrative Actions of the
United States Environmental Protection Agency

PROOF OPENING BRIEF FOR ENVIRONMENTAL PETITIONERS

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DATED: October 2, 2014

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UNITED STATES COURT OF APPEALS
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AMERICAN FOREST & PAPER ASSOCIATION, *et al.*, Petitioners, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.	Case No. 11-1125 (and consolidated cases)

ENVIRONMENTAL PETITIONERS' CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to D.C. Circuit Rule 28(a)(1), Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Desert Citizens Against Pollution, Montanans Against Toxic Burning, Huron Environmental Activist League, Downwinders at Risk, Partnership for Policy Integrity, and Environmental Integrity Project (collectively, "Environmental Petitioners") hereby certify as follows:

(A) Parties and Amici

(i) Parties, Intervenors, and Amici Who Appeared in the District Court

This case is a petition for review of final agency action, not an appeal from the ruling of a district court.

(ii) Parties to This Case

Petitioners:

11-1125 American Forest & Paper Association, National Association of Manufacturers, American Coke and Coal Chemicals Institute, American Iron and Steel Institute, American Wood Council, Biomass Power Association, Chamber of Commerce of the United States of America, Corn Refiners Association, National Oilseed Processors Association, Rubber Manufacturers Association, Treated Wood Council

11-1140 American Chemistry Council

11-1144 Coalition for Responsible Waste Incineration

11-1149 Waste Management, Inc.

11-1154 Cement Kiln Recycling Coalition

11-1155 Portland Cement Association

11-1161 Council of Industrial Boiler Owners

11-1171 Eastman Chemical Company

11-1173 Ash Grove Cement Company

11-1180 American Petroleum Institute

11-1183 Sierra Club, Huron Environmental Activist League, Montanans Against Toxic Burning

11-1188 Rhodia Inc.

13-1111 Portland Cement Association

13-1113 CEMEX, Inc., CEMEX Construction Materials Florida, LLC

13-1114 Eastman Chemical Company

13-1116 American Petroleum Institute

13-1118 American Chemistry Council

13-1119 Coalition for Responsible Waste Incineration

13-1120 Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Desert Citizens Against Pollution, Montanans Against Toxic Burning, Huron Environmental Activist League, Downwinders At Risk, Partnership for Policy Integrity, Environmental Integrity Project

13-1121 Alaska Oil and Gas Association, Alaska Miners Association, ConocoPhillips Alaska, Inc.

13-1123 American Wood Council, American Forest & Paper Association, Chamber of Commerce of the United States of America, National Association of Manufacturers

13-1124 Energy Recovery Council

13-1127 WM Organic Growth, Inc., Wheelabrator Technologies Inc., Wheelabrator Ridge Energy, Inc., Waste Management, Inc.

Respondents:

The respondent in all cases is the United States Environmental Protection Agency. Also named as a respondent in case nos. 11-1154, 11-1155, 11-1173, 11-1180, 11-1183, 13-1111, and 13-1120 is Gina McCarthy, in her official capacity as Administrator of the U.S. Environmental Protection Agency.

Intervenors:

American Chemistry Council, Portland Cement Association, Alaska Miners Association, Solvay USA Inc., Alaska Oil and Gas Association, Coalition for

Responsible Waste Incineration, Council of Industrial Boiler Owners, Eastman Chemical Company, Huron Environmental Activist League, ConocoPhillips Alaska, Inc., Montanans Against Toxic Burning, Sierra Club, Auto Industry Forum, Clean Air Council, Energy Recovery Council, Partnership for Policy Integrity, WM Organic Growth, Inc., WM Renewable Energy, LLC, Waste Management, Inc., Wheelabrator Ridge Energy, Inc., and Wheelabrator Technologies Inc. have intervened on behalf of the respondent in these consolidated cases.

(iii) *Amici* in This Case

There are currently no *amici*.

(iv) Circuit Rule 26.1 Disclosures for Environmental Petitioners

See disclosure form filed below.

(B) Rulings Under Review

Environmental Petitioners seek review of final actions taken by EPA at 76 Fed. Reg. 15,704 (Mar. 21, 2011) and titled "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units," and at 78 Fed. Reg. 9112 (Feb. 7, 2013), and titled "Commercial and Industrial Solid Waste Incineration Units: Reconsideration and Final Amendments; Non-Hazardous Secondary Materials That Are Solid Waste."

(C) Related Cases

The Court has ordered these cases be heard by the same panel as will hear the following currently pending challenges to related rules:

U.S. Sugar Corporation v. EPA, No. 11-1108 (and consolidated cases)

American Chemistry Council v. EPA, No. 11-1141 (and consolidated cases)

Solvay USA Inc. v. EPA, No. 11-1189 (and consolidated cases)

Environmental Petitioners are unaware of any other currently pending related cases, apart from the consolidated cases.

DATED: October 2, 2014

Respectfully submitted,

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ORAL ARGUMENT NOT YET SCHEDULED

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

UNITED STATES SUGAR CORP, Petitioner, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.	Case No. 11-1108 (and consolidated cases)

ENVIRONMENTAL PETITIONERS' RULE 26.1 DISCLOSURE STATEMENT

Louisiana Environmental Action Network

Non-Governmental Corporate Party to this Action: Louisiana Environmental Action Network ("LEAN").

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: LEAN is a corporation organized and existing under the laws of the State of Louisiana. LEAN is a nonprofit organization which works with citizens' groups throughout the state of Louisiana to develop, implement, protect, and enforce legislative and regulatory environmental safeguards.

Sierra Club

Non-Governmental Corporate Party to this Action: Sierra Club.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: Sierra Club, a corporation organized and existing under the laws of the State of California, is a national nonprofit organization dedicated to the protection and enjoyment of the environment.

Clean Air Council

Non-Governmental Corporate Party to this Action: Clean Air Council ("CAC").

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: CAC is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania. CAC is a not-for-profit organization focused on protection of public health and the environment.

Desert Citizens Against Pollution

Non-Governmental Corporate Party to this Action: Desert Citizens Against Pollution.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: Desert Citizens Against Pollution is an organization under the laws of the State of California that protects the communities of the desert from pollution and its threat to human health and the environment.

Montanans Against Toxic Burning

Non-Governmental Corporate Party to this Action: Montanans Against Toxic Burning.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: Montanans Against Toxic Burning, a corporation registered and exiting under the laws of the State of Montana, is a nonprofit, grassroots citizens' advocacy group of health professionals, small business owners, farmers, ranchers, builders, and other concerned citizens focused on air quality issues in Montana. Their goal is to educate the public about the human health and environmental risks of toxic waste incineration. They oppose the burning of hazardous, toxic, and solid wastes in industrial facilities not specifically designed for that purpose. They support the responsible disposal of wastes, including true recycling and other alternatives, and the reduction of hazardous air pollutants through the use of best available control technology.

Huron Environmental Activist League

Non-Governmental Corporate Party to this Action: Huron Environmental Activist League.

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: Huron Environmental Activist League, certified and existing as a non-profit educational corporation under the laws of the State of Michigan, was formed by residents of Alpena County to educate and protect residents of Alpena County (and other counties as dictated by the Board of Directors) from human and environmental contaminants and their impact on the environment and public health and safety; to work with environmental organizations, regulatory agencies, corporations, and lawmakers in seeking solutions and alternatives to human and environmental contamination; and to monitor the activities of companies that generate human and environmental contaminants in Alpena, Michigan (and elsewhere as dictated by the Board of Directors), as well as the regulatory agencies that oversee such companies.

Downwinders at Risk

Non-Governmental Corporate Party to this Action: Downwinders at Risk:

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: Downwinders at Risk, a nonprofit corporation organized and existing under the laws of the State of Texas, is a diverse grassroots citizens group dedicated to reducing toxic industrial air pollution in North Texas and to continued education and advocacy concerning cement plant pollution.

Partnership for Policy Integrity

Non-Governmental Corporate Party to this Action: Partnership for Policy Integrity ("PFPI").

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: PFPI, a corporation organized and existing under the laws of the Commonwealth of Massachusetts, is a nonprofit organization that uses science, policy analysis, and strategic communications to promote sound energy policy.

Environmental Integrity Project

Non-Governmental Corporate Party to this Action: Environmental Integrity Project ("EIP").

Parent Corporations: None.

Publicly Held Company that Owns 10% or More of Party's Stock: None.

Party's General Nature and Purpose: EIP, a corporation organized and existing under the laws of the District of Columbia, is a national nonprofit organization that advocates for more effective enforcement of environmental laws.

DATED: October 2, 2014

Respectfully submitted,

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Pursuant to Circuit Rule 28(a)(3), the following is a glossary of acronyms and abbreviations used in this brief:

CISWI	Commercial and Industrial Solid Waste Incinerators
CKRC	Cement Kiln Recycling Coalition
CO	Carbon monoxide
EPA	Respondents U.S. Environmental Protection Agency and Gina McCarthy, Administrator
HCl	Hydrogen chloride
MACT	Maximum Achievable Control Technology
mmBTU/hr	Million British Thermal Units per hour
NACAA	National Association of Clean Air Agencies
NACWA	National Association of Clean Water Agencies
NOx	Nitrogen oxide
NRDC	Natural Resources Defense Council
ppm	Parts per million
ppmv	Parts per million volume
SO2	Sulfur dioxide
UPL	Upper Prediction Limit

JURISDICTIONAL STATEMENT

This Court has jurisdiction under 42 U.S.C. §7607(b)(1)-(2) to review two final actions taken by EPA: 76 Fed. Reg. 15,704 (Mar. 21, 2011), JA____, entitled "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule"; and 78 Fed. Reg. 9112 (Feb. 7, 2013), JA____, entitled "Commercial and Industrial Solid Waste Incineration Units: Reconsideration and Final Amendments; Non-Hazardous Secondary Materials That Are Solid Waste; Final Rule." Petitioners filed timely petitions for review of these actions on May 20, 2011 and April 8, 2013, respectively.

STATUTES AND REGULATIONS

Pertinent statutes and regulations are in a separate addendum.

STATEMENT OF ISSUES

1. Whether EPA violated 42 U.S.C. §7429 by exempting the vast majority of commercial and industrial solid waste incinerators (CISWI) from standards or by deferring standards for the vast majority of CISWI.

2. Whether EPA violated 42 U.S.C. §7429(g)(2)-(3) by classifying CISWI that meet the definition of "modified" sources as "existing" sources instead.

3. Whether EPA violated 42 U.S.C. §7429(a)(2) or acted arbitrarily by setting emission standards that do not reflect the average emission levels actually achieved by the best-performing CISWI.

4. Whether EPA violated 42 U.S.C. §7429(a)(2) or acted arbitrarily by setting emissions standards for CISWI that do not require the maximum reduction in emissions that is achievable considering cost and other statutory factors.

STATEMENT OF FACTS

I. FACTUAL BACKGROUND.

Commercial and industrial solid waste incinerators (CISWI) emit a wide array of highly toxic pollutants, including over 1560 pounds of mercury, over 46,500 tons of nitrogen oxides, over 38,600 tons of sulphur dioxide, and over 2870 tons of particulate matter each year. 75 Fed. Reg. 31,938, 31,941/3 (June 4, 2010), JA____; EPA-HQ-OAR-2003-0119-2660 ("Emissions Memo") tbl.1, JA____. CISWI also belch out significant quantities of carbon monoxide, hydrochloric acid, lead, cadmium, and dioxins and furans. 75 Fed. Reg. 31,941/3, JA____.

These pollutants endanger human health. Mercury is "highly neurotoxic." EPA-HQ-OAR-2003-0119-2493 ("Impacts Analysis") 5-23, JA____. Exposure impairs the neurological development of fetuses, infants, and children, affecting

cognition, memory, attention, language, and fine motor and spatial skills.[1] Lead exposure damages children's nervous systems and causes various learning disabilities.[2] Lead also builds up in the blood stream and inhibits kidney and immune system functions.[3] Cadmium exposure causes pulmonary irritation and kidney disease.[4] Both lead and cadmium are probable human carcinogens.[5] Dioxin exposure causes cancer, birth defects, liver damage, and the skin disease chloracne.[6] Sulfur dioxide and nitrogen oxides are associated with a variety of respiratory health effects, and are precursors to the formation of particulate matter.[7] Particulate matter is linked to a range of serious respiratory and cardiovascular

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[1] EPA, *Mercury: Health Effects* (Mar. 10, 2014), http://www.epa.gov/mercury/effects.htm#meth.

[2] EPA, *Lead Compounds* (Oct. 18, 2013), http://www.epa.gov/ttn/atw/hlthef/lead.html.

[3] *Id.*

[4] EPA, *Cadmium Compounds* (Oct. 18, 2013), http://www.epa.gov/ttn/atw/hlthef/cadmium.html.

[5] *Id.*; EPA, *Lead Compounds* (Oct. 18, 2013), http://www.epa.gov/ttn/atw/hlthef/lead.html.

[6] EPA, *Dioxin* (Aug. 12, 2010), http://cfpub.epa.gov/ncea/CFM/nceaQFind.cfm?keyword=Dioxin; Impacts Analysis 5-28 to 5-29, JA____-__.

[7] Impacts Analysis 5-17 to 5-18, JA____-__; *id.* 5-2, JA____; EPA, *Nitrogen Dioxide: Health*, http://www.epa.gov/oaqps001/nitrogenoxides/health.html.

problems. Exposure can cause asthma, chronic bronchitis, heart attacks, and death.[8] Hydrogen chloride is intensely irritating to the mucous membranes of the nose, throat, and respiratory tract, and causes asthma. Impacts Analysis 5-27 to 5-28, JA____-__. Carbon monoxide exposure is linked to birth defects and harm to the central nervous system. Short-term exposure may cause heart attacks, respiratory illness, and death. Impacts Analysis 5-17, JA____.

II. STATUTORY BACKGROUND.

Section 7429 of the Clean Air Act requires strict limits on emissions of these nine pollutants from solid waste incineration units, which the Act defines as "a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public." *Natural Res. Def. Council* ("*NRDC*") v. *EPA*, 489 F.3d 1250, 1255 (D.C. Cir. 2007) (quoting 42 U.S.C. §7429(g)(1)) (emphases in *NRDC*). EPA must set standards that "apply across the board to all solid waste incineration disposal units in a given category." *Id.* 1256 (emphases added). The standards for the commercial and industrial solid waste incinerator (CISWI) category were required to be in place by November 15, 1994. 42 U.S.C. §7429(a)(1)(D).

[8] EPA, *Particulate Matter* (Jan. 9, 2014), http://www.epa.gov/ncer/science/pm/.

Section 7429 requires EPA to set numerical emission standards for each of the nine pollutants already mentioned. *Id.* §7429(a)(4). Each standard must require

> the maximum degree of reduction in emissions … that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category.

Id. §7429(a)(2) (emphases added).

In short, as this Court has paraphrased the "virtually identical" language of §7412, EPA must "set the most stringent standards achievable." *Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 631 (D.C. Cir. 2000), *as amended on denial of reh'g* (D.C. Cir. 2001); *Cement Kiln Recycling Coal. v. EPA*, 255 F.3d 855, 857 (D.C. Cir. 2001) ("*CKRC*"). "This is not a cost-effectiveness or cost-benefit test." S. Rep. 101-228, at 169 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3554. Although EPA is authorized to consider cost, the ultimate determination is whether emission reductions are "achievable." 42 U.S.C. §7429(a)(2);S. Rep. 101-228, at 168, 1990 U.S.C.C.A.N. 3553. The statute does not mandate any particular "method" of cost analysis. *See NACWA v. EPA*, 734 F.3d 1115, 1156-57 (D.C. Cir. 2013) (holding EPA did not "abuse[] its discretion" by considering costs on a per-ton basis).

Regardless of cost or the other statutory factors, standards for new units "shall not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit," and standards for existing units "shall not be

less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category." 42 U.S.C. §7429(a)(2). On several prior occasions, this Court has addressed these floor requirements and the virtually identical ones in §7412, *id.* §7412(d)(3). It has consistently made clear that for both new and existing units the Clean Air Act "requires floors based on the emission level actually achieved by the best performers (those with the lowest emission levels)." *Sierra Club v. EPA*, 479 F.3d 875, 880 (D.C. Cir. 2007). *See also Ne. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 954-955 (D.C. Cir. 2004); *CKRC*, 255 F.3d at 865-66; *Nat'l Lime*, 233 F.3d at 632-33; *Sierra Club v. EPA*, 167 F.3d 658, 662-63 (D.C. Cir. 1999).

"Modified solid waste incineration unit[s]" must be regulated as new units. 42 U.S.C. §7429(g)(2). Modified units include units at which, after the effective date of a standard, a "change in the method of operation of the unit . . . increases the amount of any air pollutant emitted by the unit for which standards have been established under [§7429 or §7411]." *Id.* §7429(g)(3)(B).

III. REGULATORY BACKGROUND.

A. Regulatory History.

EPA first issued standards for CISWI on December 1, 2000, more than six years after the statutory deadline. 76 Fed. Reg. 15,707/3, JA____; 42 U.S.C. §7429(a)(1)(D). Several environmental groups, concerned about the narrow

coverage of the 2000 standards, *see* EPA-HQ-OAR-2003-0119-2494 ("2011 Response to Comments") 105, JA____, petitioned for review, and EPA requested a voluntary remand. Motion For Voluntary Remand Without Vacatur, *Sierra Club v. EPA*, No. 01-1048, ¶6 (D.C. Cir. Aug. 23, 2001) (Attach.1).

In 2005, EPA issued the "CISWI definitions rule" in an attempt to justify excluding most units from the standards. 76 Fed. Reg. 15,707/3, JA____. The rule purported to narrow the CISWI category to exclude units that recover energy. *Id.* Environmental groups again petitioned for review, and in *NRDC v. EPA* this Court held that the Clean Air Act "unambiguously" requires EPA to set §7429 emission standards for all CISWI, regardless of whether they recover energy, and vacated the rule. 489 F.3d at 1257-58; 76 Fed. Reg. 15,707/3-08/1, JA____-__. The standards under review in this case are yet another response to the voluntary remand in *NRDC*. 76 Fed. Reg. 80,452, 80,456/1 (Dec. 23, 2011), JA____.

B. New EPA-Created Exclusions.

In the new CISWI rules, EPA persists in excluding most CISWI from the standards. EPA achieves this result by defining most CISWI out of the subcategories of incinerator (incinerators[9], small remote incinerators, three classes

[9] Although all CISWI are "incinerators" as that term is used in the Act, EPA uses the same word to denote a subcategory of CISWI. 76 Fed. Reg. 15,783/2, JA____.

of energy recovery units, and two classes of kilns) for which it set standards. 78 Fed. Reg. 9118, tbl.2, JA____. For example, EPA states in the definition of burn-off ovens that "[a] burn-off oven is not an incinerator, waste-burning kiln, an energy recovery unit or a small, remote incinerator under this subpart." 40 C.F.R. §60.2265. *See also id.* (same for cyclonic burn barrels, foundry sand reclamation units, laboratory analysis units, soil treatment units, and space heaters). With the exception of laboratory analysis units, 76 Fed. Reg. 15,716/1, JA____, EPA does not deny that the excluded units are CISWI. 75 Fed. Reg. 31,948/2, JA____ (stating that cyclonic burn barrels and burn-off ovens are "solid waste incineration units"); 76 Fed. Reg. 80,463/2, JA____ (determining that foundry sand reclamation units are a class of burn-off oven).

EPA's maneuver exempts the vast majority of CISWI from compliance with the standards. EPA says there are many thousands of CISWI and admits the standards cover only 106 of them. 76 Fed. Reg. 15,734/3, JA____ ("there may be more than 15,000 units in the burn-off oven subcategory"); 76 Fed. Reg. 80,460/1, JA____ ("there may be many more cyclonic burn barrels"); 76 Fed. Reg. 15,734/3, JA____ ("there may be many more soil treatment units"); Emissions Memo 2, JA____ (106 units are covered). Nevertheless, EPA claims these rules satisfy the statutory obligation to set standards for CISWI. 75 Fed. Reg. 31,950/3, JA____ ("The proposed revised standards represent EPA's position concerning what is

necessary to satisfy our initial duties under [§7429](a)(2) to have set MACT standards for CISWI").[10]

C. EPA's Redefinition Of Modified Units As Existing Units.

EPA determined that "[u]nits that begin combusting solid waste are considered existing sources[.]" 76 Fed. Reg. 15,714/2, JA____. *See also* 76 Fed. Reg. 80,459/3, JA____. Commenters pointed out that this determination is unlawful because such units fit the definition of "modified solid waste incineration unit" and must be regulated as new units. EPA-HQ-OAR-2003-0119-2638 ("Earthjustice Comments") 43, JA____ (citing 42 U.S.C. §7429(g)). EPA did not respond to the comment.

Commenters also explained that switching to combusting solid waste may increase emissions of regulated pollutants. EPA-HQ-OAR-2003-0119-2646 at 12-13, JA____-__ ("contaminant levels" in waste biomass compare to "the *highest* contaminant levels found in coal"); EPA-HQ-OAR-2003-0119-2698 at 10, JA____ ("CO, SO2, and NOx emissions concentrations are significantly elevated after first waste feed"). EPA does not disagree. 76 Fed. Reg. 15,481/3, JA____ ("fuels that

[10] Elsewhere, EPA states that certain CISWI subcategories "will be subject to MACT standards either in this action or in a future action," 76 Fed. Reg. 15,709/1, JA____, without specifying which.

are produced from secondary materials have the potential to have elevated levels of contaminants").

D. Standards Set At the "Upper Bound."

EPA set the standard for every pollutant from every subcategory at what it claims is the floor, the minimum stringency allowed by the Clean Air Act. 42 U.S.C. §7429(a)(2). *See* 76 Fed. Reg. 15,724/3, 15,729/1-32/2, JA____, ____-__; EPA-HQ-OAR-2003-0119-2683 ("Beyond-the-Floor Memo"), JA____; EPA-HQ-OAR-2003-0119-2662 ("Floor Memo") 10, 13, JA____,____.

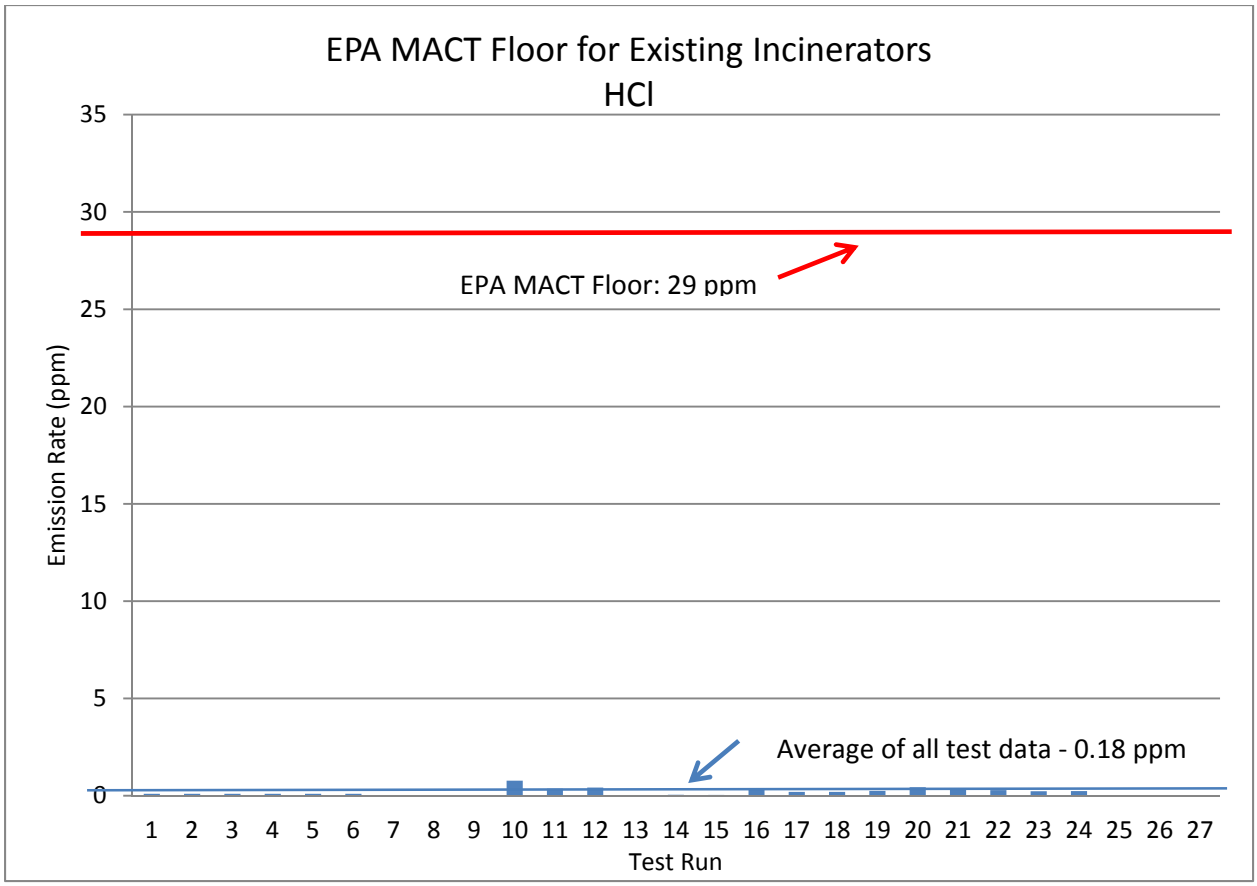
EPA began by ranking the sources in each subcategory according to their average three-hour stack test results. Floor Memo 5, JA____; 76 Fed. Reg. 15,728/2, JA____. EPA selected the sources with the lowest averages as the best performers in each subcategory. Floor Memo 5, JA____. But EPA did not use these averages as the floor. Instead, EPA applied its 99 percent upper prediction limit formula to the data to predict the number any future three-hour stack test by any unit in the datasets would "fall below." 76 Fed. Reg. 15,724/2-3, 15,728/2, JA____, ____. EPA explained that the 99 percent upper prediction limit is the "upper bound of future values": "if we were to select at random a future test condition from any of the top 12 percent (MACT floor pool) of sources (average of 3 runs), we can be 99 percent confident that the reported level will fall at or below the [99 percent upper prediction limit] value." Floor Memo 10, JA____; *accord* 76

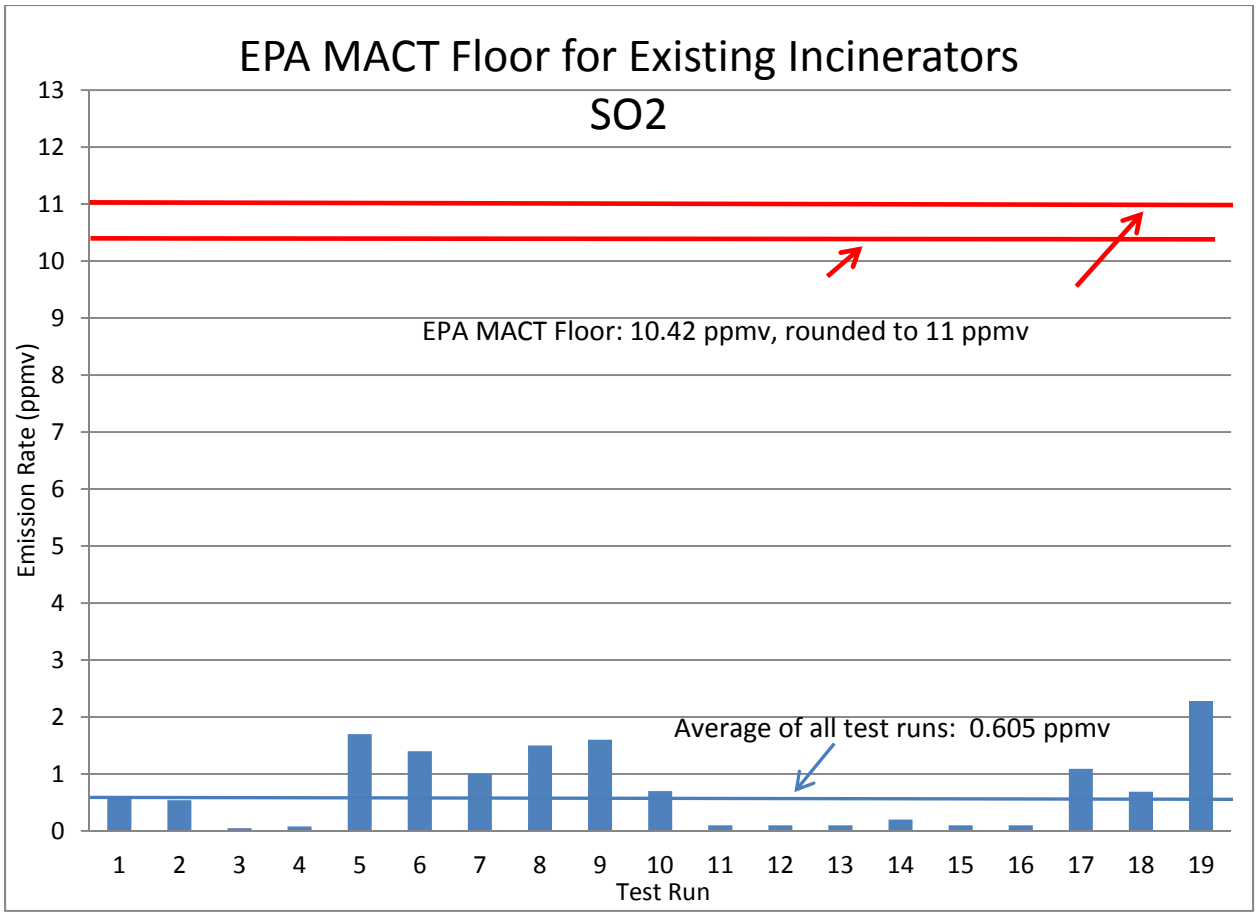
Fed. Reg. 15,724/1, JA____ ("the prediction interval estimates what the upper bound of future values will be").[11] EPA selected these upper bound values as the floor limits. Floor Memo 13, JA____.

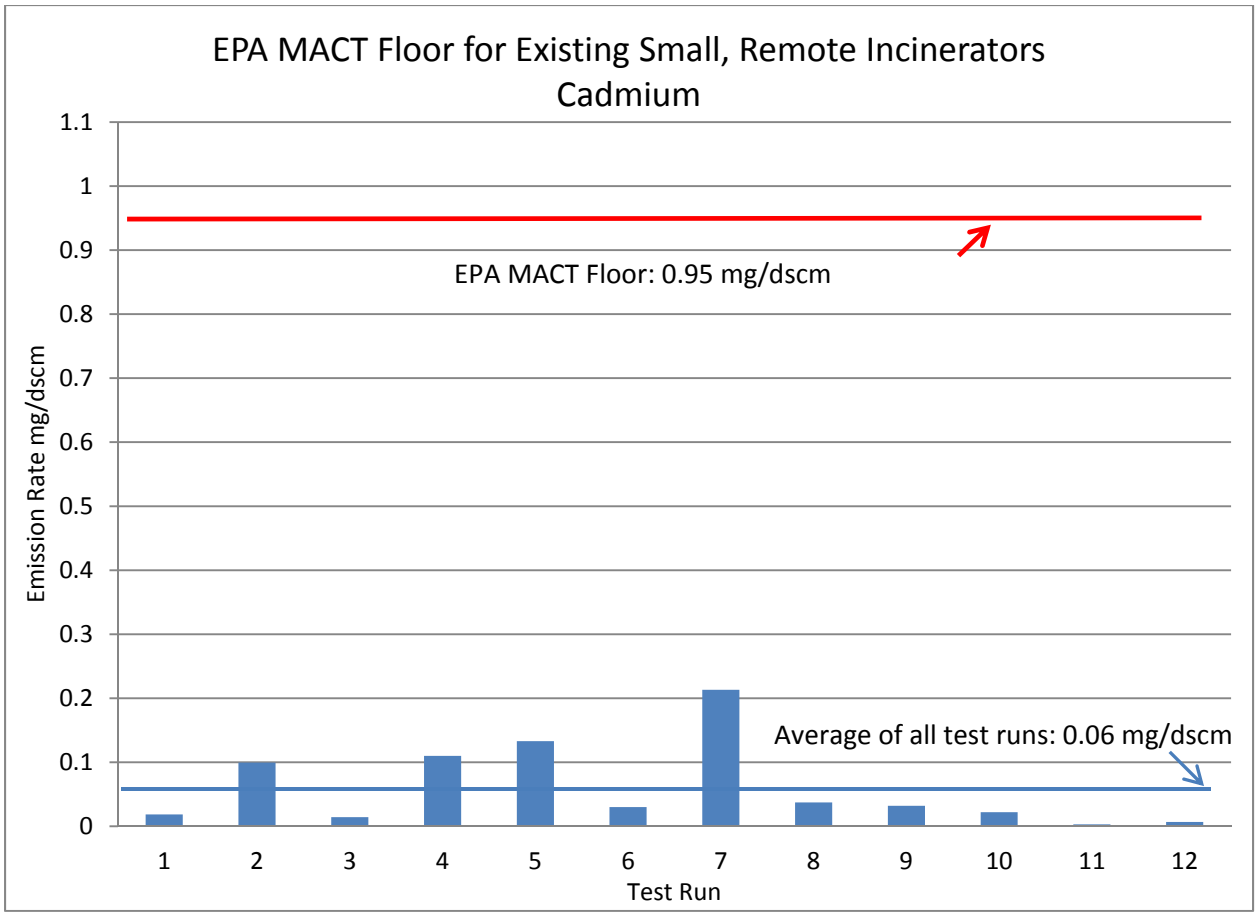
The 2011 final rule contains several tables illustrating the extent to which floors based on the "upper bound" depart from the average. 76 Fed. Reg. 15,724-26 tbls.4-6, JA____-__. For each pollutant and each subcategory, the tables record the "Avg of top 12%" and also the limit generated by EPA's statistical formulas. *Id.* Several limits exceed the average by orders of magnitude. *E.g.*, *id.* 15,724 tbl.4, JA____ (showing limit for mercury from incinerators is 900% of the average); *id.* 15,725 tbl.6, JA____ (showing limit for dioxins from kilns is 1400% of the average and limit for hydrochloric acid from incinerators is 16,022% of the average).

The charts below compare three of EPA's final reconsidered floor limits to the average and to the underlying data EPA used. Floor Memo app.C, JA____-__ (hydrogen chloride, sulfur dioxide, cadmium).

[11] For the incinerator and small remote incinerator subcategories, EPA used the 99 percent upper limit instead of the 99 percent upper prediction limit. Floor Memo 7, JA____. The 99 percent upper limit, like the 99 percent upper prediction limit, yields a number that any three-hour stack test by any unit in the dataset would "fall below." 76 Fed. Reg. 15,723/3, JA____.


EPA MACT Floor for Existing Incinerators
HCl
Emission Rate (ppm)
35
30
25
20
15
10
5
0
EPA MACT Floor: 29 ppm
Average of all test data - 0.18 ppm
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
Test Run


EPA MACT Floor for Existing Incinerators
SO2
EPA MACT Floor: 10.42 ppmv, rounded to 11 ppmv
Average of all test runs: 0.605 ppmv
Emission Rate (ppmv)
Test Run
0
1
2
3
4
5
6
7
8
9
10
11
12
13
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19



EPA received comments pointing out that its floors for existing CISWI do not reflect the "average" emission level achieved by the best performers in each subcategory, as required by §7429. EPA-HQ-OAR-2003-0119-2027 ("NRDC Comments") 2, JA ____. EPA did not specifically respond, but stated it "believes that it has followed the statute and applicable case law in developing its MACT floors." 76 Fed. Reg. 15,724/3, JA____.

E. Changes To Averaging Times On Reconsideration.

On reconsideration, EPA retained the floor limits set at the upper bound for three-hour stack tests, 76 Fed. Reg. 80,457 tbl.1, JA____, but decided to allow

sources to use 30-day averages, representing 720 hours of operation, to demonstrate compliance with the same limits. *Id.* 80,493-95, JA____-__ (40 C.F.R. §60.2145(g)(1), (h), (s), (t), (u)(1)) (authorizing compliance with carbon monoxide, particulate matter, sulfur dioxide, nitrogen oxide, and all other pollution limits based on "30-day rolling average"); *id.* 80,465/1, JA____ (authorizing use of "30-day rolling average" for parameter monitoring from energy recovery units); 78 Fed. Reg. 9188/2, JA____ (30-day rolling average is the "arithmetic mean of the previous 720 hours").

EPA has long recognized that "the stringency of a standard is a function of both the numerical value of the standard and the averaging period." 64 Fed. Reg. 52,828, 52,930/3 (Sept. 30, 1999), JA____. "[A] limit expressed as an annual average," for example, "is inherently less stringent than the same limit expressed as a 30-day average." 77 Fed. Reg. 39,943, 39,946/3 (July 6, 2012), JA____. In the CISWI rule, before reconsideration, EPA stated that "chang[ing] to use of [continuous emissions monitoring] for measurement and enforcement of the same emission limits must be carefully considered in relation to an appropriate averaging period." 75 Fed. Reg. 31,961/3, JA____. EPA rejected 24-hour averages as "inconsistent" with floor calculations based on three-hour stack tests. 76 Fed. Reg. 15,728/2, JA____. "A 3-hour average is not comparable to data obtained over a 24-hour sampling with a [continuous emissions monitor]," EPA said. *Id.*

But on reconsideration EPA claimed it was "appropriate" to switch to 720-hour averages. 76 Fed. Reg. 80,465/1, JA____. EPA acknowledged that emissions are much less variable when averaged over 720 hours of operation, but stated it was adopting the longer averaging period to give operators greater "flexibility." *Id.* As a result, under the final rule, sources are in compliance so long as their average emissions over 720 hours are below limits set at the upper bound predicted for three-hour stack tests.

Commenters pointed out that switching to 720-hour averaging while retaining limits set at the three-hour upper bound is "a major methodological error" that allows sources to comply when their emissions are "much higher than those of the best performing units that the standard is required to reflect." Earthjustice Comments 6-7, JA____. *See also* EPA-HQ-OAR-2003-0119-2614 ("NACAA 2012 Comments") 19, JA____ ("There is then no technical justification for the very large variability factors adopted by EPA (based on one-hour test runs) in a system that permits 30-day averages to be used for compliance."). In response, EPA claimed that, precisely because it was not adjusting the numeric limits, the comments were "out of scope." EPA-HQ-OAR-2003-0119-2686 ("2012 Response to Comments") 231, JA____. EPA further asserted that 30-day averaging is "appropriate" because 30-day averaging is permitted under the rule for industrial boilers and because "more problematic" violations, such as complete control

system failure, would lead to violations of the standard under a 30-day average "almost as much." *Id.*; 76 Fed. Reg. 80,465/1, JA____.

F. *NACWA* And EPA's *Post Hoc* Rationale For Using The 99 Percent Upper Bound.

After EPA issued its final 2013 Rule, this Court addressed the agency's upper prediction approach in the context of another rule EPA issued under §7429. *NACWA*, 734 F.3d at 1139-45. The Court found EPA seemed to have interpreted "'average emissions limitation achieved by the best performing 12 percent' … [to] refer to the future average of a 3-run test that EPA predicts a source in the best-performing 12 percent will fall below with 99 percent confidence." *Id.* 1142. The Court held it could not uphold this approach "against arbitrary and capricious review" and directed EPA, on remand, "to clarify how the upper prediction limit represents the 'average emissions limitation achieved by the best performing 12 percent.'" *Id.* 1143 (emphasis added).

The Court also noted that the upper prediction limit produces an "apparently illogical result," *id.* 1144, predicting a "higher MACT floor for an incinerator with raw test data ranging from 0.31 to 2.26 than for a group of incinerators with raw test data ranging from 0.31 to 40.32 and a mean of 9.38." *Id.* The Court remanded on this issue as well, observing "[w]e are hesitant to rubber-stamp EPA's invocation of statistics without some explanation of the underlying principles or

reasons why its formulas would produce an accurate result, particularly when the 'facts found'—the MACT floor datasets—demonstrate flaws in the formula." *Id.* 1145.

Based on *NACWA*, EPA moved for a partial remand in the present case. EPA Motion for Remand of the Record 1-2, DN1482093, JA____-__. With respect to all the standards for which its upper prediction limit did not yield the same "illogical result" identified in *NACWA*, however, EPA sought only a remand of the record. *Id.* 4-7, JA____-__.[12] The agency represented that its response to the remand would merely clarify its rationale for the upper prediction limit, not advance a different rationale or add new data to the record. Reply in Support of Remand 4-7, DN1487285, JA____-__. The Court granted EPA's motion. Order of May 15, 2014, DN1493180, JA____.

EPA refused to consider making any changes to these standards or to accept comment on its response to the remand. EPA now states it does not interpret "average" to mean "the average of a future 3-run compliance test" but, rather, "interprets the average to mean the average emissions over time." EPA-HQ-OAR-2003-0119-2707 ("Page Memo") 3, JA____. EPA then claims variously that the upper prediction limit represents:

[12] The remaining standards, for which EPA sought an ordinary remand, are not at issue in the present case.

- "the average level expected to have been achieved over time" by the relevant sources. *Id.* 4, JA____ (emphasis added); and
- a level of emissions EPA does not expect the average source to exceed. *Id.* 4, 6, 10, JA____, ____, ____.

EPA's rationale for both of these claims is that "the first element of the UPL equation" represents the "average," and "the second half of the equation addresses the variability of that average emissions level." *Id.* 4, 11, JA____, __.

EPA also uses the new memorandum to import new data from the sewage sludge incinerator rule, and argues that these data show its upper prediction approach in the CISWI rule is "reasonable." *Id.* 13-15, JA____-__.

G. EPA's Refusal To Require "Beyond-The-Floor" Emission Reductions For Any Pollutant From Any Subcategory.

In the proposed rule, EPA acknowledged its statutory obligation to examine more stringent "beyond-the-floor" emissions reductions for CISWI, 75 Fed. Reg. 31,942/2, JA____, but only considered setting the standards for existing sources equal to the floors for new sources, *id.* 31,956/2, JA____. Commenters pointed out that this approach was unlawful, because other beyond-the-floor emissions reductions are "achievable." NRDC Comments 11, JA____ (citing 42 U.S.C. §7429(a)(2)). In the final rule, EPA examined other available control technologies. 76 Fed. Reg. 15,729/1-32/2, JA____-__. Declaring its goal to be "minimizing adverse economic impact wherever possible," *id.* 15,732/1, JA____, EPA refused

to require beyond-the-floor reductions for any pollutant from any subcategory. In most instances, EPA refused to adopt more stringent standards on the ground that the associated cost is allegedly "not . . . reasonable." *Id.* 15,731/2, JA____; Beyond-the-Floor Memo, JA____. In a few instances, EPA rejected beyond-the-floor standards because it lacked data, Beyond-the-Floor Memo 4, 10, JA____, ____, or because control technology would require electricity or natural gas to operate. 75 Fed. Reg. 31,957/1, JA____; 76 Fed. Reg. 15,732/1, JA____.

Several parties petitioned for reconsideration, pointing out that it had been "impracticable" to comment because EPA's rejection of additional beyond the floor standards appeared for the first time in the final rule, and that this was an issue of "central relevance." EPA-HQ-OAR-2003-0119-1505 ("Sierra Club Petition") 5, JA____ (citing 42 U.S.C. §7607(d)(7)(B)). Claiming that taking comment on these issues would "result in 'interminable back-and-forth,'" EPA denied reconsideration. EPA-HQ-OAR-2003-0119-2676 at 22-23, JA____-__.

1. EPA's Refusal To Require Emission Reductions EPA Predicts Will Be Achieved.

EPA rejected beyond-the-floor limits for particulate matter that EPA predicts CISWI units will achieve. EPA states that kilns and energy recovery units will install high efficiency fabric filters to meet the floor limits for cadmium and lead, 76 Fed. Reg. 15,730/2, 15,731/3, JA____-__, and calculates that these controls will

enable kilns and energy recovery units to reduce their emissions of particulate matter below 1.8 mg/dcsm (for kilns) and below 4.4 mg/dcsm (for energy recovery units). 75 Fed. Reg. 31,958/1, JA____ ("fabric filters that we believe will be necessary to control the metals will likely achieve a level of performance that is better than the MACT floor limit for [particulate matter]"); *id.* 31,945 tbl.2, JA____ (proposing particulate matter floor limits of 1.8 and 4.4 mg/dcsm).

Having concluded that levels below 1.8 and 4.4 mg/dcsm will be achieved using the technology EPA predicts will be installed, EPA set final particulate matter limits of 4.6 mg/dcsm for kilns and 11, 160, and 110 mg/dcsm, for biomass, coal, and liquid-fired energy recovery units, respectively, 78 Fed. Reg. 9118 tbl.2, JA____, and rejected commenters' calls to set a beyond-the-floor limit at the level EPA predicts will be achieved. NRDC Comments 13-14, JA____-__; Sierra Club Petition 6, JA____.

2. EPA's Refusal To Require Emissions Reductions Achievable Using The Same Technology Most Sources Will Install.

EPA also rejected beyond-the-floor standards that would simply require use of the same technologies EPA predicts most sources will install to meet the floor. For example:

- EPA predicts four out of six liquid-fired energy recovery units will install dry sorbent injection and a fabric filter to control particulate

matter, but rejected a beyond-the-floor standard achievable with dry sorbent injection and a fabric filter because it would require the remaining two units to install the same control technology. 76 Fed. Reg. 15,731/3, JA____.

- EPA predicts all kilns but one will install activated carbon injection and a fabric filter to achieve the floor for mercury, but rejected a standard achievable with activated carbon injection and a fabric filter because it would require the last kiln to install the same control technology. Beyond-the-Floor Memo 8, JA____.
- EPA predicts over half of all kilns will install a regenerative thermal oxidizer to achieve the floor for carbon monoxide, but rejected a standard achievable with a regenerative thermal oxidizer because it would require the remaining kilns to install the same control technology. *Id.* 9, JA____.

EPA does not claim that any of these beyond-the-floor reductions are not "achievable." *Cf.* 42 U.S.C. §7429(a)(2). Nor does EPA explain how these reductions could be unachievable when EPA admits they would simply require use of the same technology EPA predicts most units will install.

3. EPA's Refusal To Require Emissions Reductions EPA Does Not Claim Are Expensive.

EPA states that $5500 per ton of emissions reduction is "generally within the cost effective range we find reasonable." 76 Red. Reg. 15,731/2-3, JA____. But even when the costs of beyond-the-floor reductions would fall within this admittedly "reasonable" range, EPA still refused to require the reductions.

EPA estimates that carbon monoxide reductions could be achieved at coal-fired energy recovery units at "low cost" using linkageless boiler management systems, Beyond-the-Floor Memo 5, JA____, but refused to require these reductions because it had long-term data for only one unit using this system. *Id.* Based on this limited data, EPA says vaguely that it is "uncertain of actual reductions this control option would achieve compared to non-waste combusting boilers of similar design." *Id.* EPA states that setting a standard based on a "catalyst device" would be "more feasible," but then rejects that option too. *Id.*

EPA estimates that emissions of sulfur dioxide from kilns could be reduced at a cost of only $5000 per ton using dry sorbent injection and a wet scrubber. *Id.* 10, JA____. But EPA rejected this beyond-the-floor reduction because "[s]ome uncertainty exists" and EPA had been "unable to account for" costs for water and disposal of the sorbent. *Id.* On that basis, EPA pronounced the beyond-the-floor reduction "not . . . reasonable." *Id.*

EPA did not estimate the cost of reductions in carbon monoxide from coal-fired energy recovery units using a regenerative thermal oxidizer. 76 Fed. Reg. 15,732/1, JA____. EPA claimed only that a regenerative thermal oxidizer would require more natural gas to operate than a carbon monoxide catalyst, while achieving "comparable" reductions. *Id.* But EPA did not require the reductions achievable using a catalyst either, and predicts these units will only conduct tune-ups. Beyond-the-Floor Memo 5, JA____.

SUMMARY OF ARGUMENT

The final CISWI standards are unlawful and arbitrary in several respects.

Exempted CISWI. EPA exempted the vast majority of CISWI by defining them out of the subcategories for which it set standards, even while claiming to have discharged the obligation to set standards for all CISWI. These exemptions are contrary to §7429, which this Court has already held "unambiguously" requires standards for all CISWI. If, alternatively, EPA decided it will set standards for the remaining CISWI at a later date, then EPA unlawfully deferred those standards. Standards for all CISWI were due by 1994.

Modified CISWI. EPA determined that units that begin combusting waste are existing CISWI regardless of whether they meet the definition of a modified unit. This reclassification is unlawful because the statute plainly provides that modified units are new units, not existing units.

Floors. Although §7429 requires floors to reflect the "average" emission level achieved by the best-performing 12 percent of units, EPA set floors at the upper prediction limit or upper limit. As EPA itself made clear, the upper prediction limit and upper limit are not the "average" but the level EPA expects any three-hour test by any source in the top 12 percent to "fall below." EPA then decided to allow sources to use a 720-hour average to comply with limits set at the level of the highest predicted three-hour test. EPA's claim that it has discretion to set such standards is unlawful under *Chevron* analysis. Further, EPA has failed to demonstrate with substantial evidence that its floors reflect the average emission level actually achieved by the best-performing sources, and record evidence strongly indicates that they do not reflect this level. EPA's litigation memorandum is *post hoc* and fails to clarify how the upper prediction limit is the "average."

Beyond-the-floor standards. Although §7429 directs EPA to require the "maximum" emission reductions "achievable," EPA rejected more-protective standards that are undisputedly achievable, including standards EPA concedes are achievable using technology that EPA predicts all units will install or that EPA predicts most units will install. EPA also rejected more-protective standards it admits are not expensive, claiming the benefits are uncertain or the technology requires water, electricity, or gas to operate. EPA's refusal to adopt these standards is unlawful under *Chevron* analysis and arbitrary.

STANDARD OF REVIEW

This Court reviews EPA's construction of the Clean Air Act pursuant to *Chevron USA v. NRDC*, 467 U.S. 837 (1984). Under *Chevron* step one, the question is whether "the intent of Congress is clear." 467 U.S. at 842-43. If so, "that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* Under *Chevron* step two, EPA's interpretation of ambiguous statutory provisions must be rejected if, among other things, "the agency has [not] offered a reasoned explanation for why it chose that interpretation," *Vill. of Barrington, Ill. v. Surface Transp. Bd.*, 636 F.3d 650, 660 (D.C. Cir. 2011), or the interpretation "frustrate[s] the policy that Congress sought to implement," *Shays v. FEC*, 528 F.3d 914, 925 (D.C. Cir. 2008) (internal quotation marks and citation omitted).

Interpretations issued without notice-and-comment opportunity and lacking the force of law "do not warrant *Chevron*-style deference," and are entitled to respect only "in proportion to their 'power to persuade.'" *Wos v. E.M.A.*, 133 S. Ct. 1391, 1402 (2013) (quoting *Christensen v. Harris County*, 529 U.S. 576, 587 (2000) and *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944)).

EPA's action is arbitrary and capricious if the agency "entirely failed to consider an important aspect of the problem," *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins.*, 463 U.S. 29, 43 (1983), or failed to "identif[y] and explain[]

the reasoned basis for its decision," *Transactive Corp. v. United States*, 91 F.3d 232, 236 (D.C. Cir. 1996).

STANDING

Environmental Petitioners have standing to bring this suit on behalf of their members. *See Friends of the Earth v. Laidlaw Envtl. Servs. (TOC)*, 528 U.S. 167, 181 (2000). Environmental Petitioners' members live, work, and recreate near CISWI. They are forced to breathe toxic emissions from CISWI into their bodies, and suffer other harm including disruption of everyday life and diminished ability to engage in and enjoy recreational and aesthetic interests. *See* Declarations. Because the CISWI rule does not reduce these emissions as required by the Clean Air Act, it prolongs and increases this harm. The Court may redress these injuries by ordering EPA to follow the Clean Air Act on remand. *See, e.g.*, *NRDC v. EPA*, 749 F.3d 1055, 1062 (D.C. Cir. 2014); *Ass'n of Battery Recyclers v. EPA*, 716 F.3d 667, 672-73 (D.C. Cir. 2013); *Sierra Club v. EPA*, 699 F.3d 530, 533 (D.C. Cir. 2012).

ARGUMENT

I. EPA UNLAWFULLY EXEMPTED MOST CISWI FROM STANDARDS OR, IN THE ALTERNATIVE, UNLAWFULLY DEFERRED STANDARDS FOR MOST CISWI.

A. EPA Unlawfully Exempted Most CISWI From Standards.

EPA has been trying since 2000 to skirt its obligation to set standards for all CISWI. *Supra* 6-7. In this rule, EPA does so again by defining the vast majority of CISWI out of the subcategories for which standards exist. *Supra* 7-8. EPA claims that setting standards for some CISWI discharges its statutory obligation to set standards for all CISWI. *Supra* 8-9.

EPA's claim that it need only set standards for some CISWI contravenes Clean Air Act §7429. This Court has already held that "[§7429] unambiguously include[s] among the incineration units subject to its standards any facility that combusts any commercial or industrial solid waste material at all." *NRDC*, 489 F.3d at 1257-58. " [§7429]'s MACT standards apply across the board to all solid waste incineration disposal units in a given category." *Id.* at 1256. *See also id.* 1260 ("[the statute] simply directs EPA in plain terms to subject a solid waste combustion facility exclusively to [§74]29's standards . . . if the facility fits [§74]29's clear definition of 'solid waste incineration unit.'"). Because burn-off ovens, cyclonic burn barrels, foundry sand reclamation units, soil treatment units, and space heaters undisputedly are CISWI, EPA's refusal to set standards for them

is unlawful at *Chevron* step one. *Chevron*, 467 U.S. at 842-43 ("the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.").

EPA's explanations for exempting these units are legally irrelevant. First, EPA states that standards for these units are not required to satisfy §7412(c)(6), which directs EPA to set pollution standards by November 15, 2000 for categories and subcategories listed as sources of certain bioaccumulative toxic pollutants. 42 U.S.C. §7412(c)(6); *Desert Citizens Against Pollution v. EPA*, 699 F.3d 524, 524 (D.C. Cir. 2012); 76 Fed. Reg. 15,734/2-3, JA____. But §7412(c)(6) is not the only provision of the Clean Air Act with which EPA must comply. If Congress had intended EPA to satisfy §7412(c)(6) only, it would not have enacted §7429 governing incinerators, which "unambiguously" requires standards for all CISWI. *NRDC*, 489 F.3d at 1257-58. *See Leocal v. Ashcroft*, 543 U.S. 1, 12 (2004) ("we must give effect to every word of a statute wherever possible"). EPA is bound by §7429's clear requirements and this Court's precedent.

Second, EPA claims it lacks data on the exempted CISWI. 76 Fed. Reg. 80,460, JA____; 76 Fed. Reg. 15,716/1, 15,734/3, JA____, __. That claim is irrelevant under the statute, which does not make EPA's obligation to set standards conditional on whether EPA chooses to collect data. 42 U.S.C. §7429(a)(1). EPA has been under an obligation to set standards for CISWI for more than two

decades. *Id.* §7429(a)(1)(D). And EPA has statutory authority to collect the data it needs to carry out its statutory obligation. *Id.* §7414(a)(1). "Having chosen not to [collect the appropriate data], EPA cannot now rely on the resulting paucity of data[.]" *North Carolina v. EPA*, 531 F.3d 896, 920 (D.C. Cir. 2008), *revised on other grounds*, 550 F.3d 1176 (D.C. Cir. 2008).

B. In The Alternative, EPA Unlawfully Deferred Standards For Most CISWI.

If EPA concedes it has an unmet obligation to set standards for all CISWI, then EPA's refusal to set standards now is an unlawful deferral of the required standards. *See* 76 Fed. Reg. 15,709/1 ("CISWI subcategories will be subject to MACT standards either in this action or in a future action"), JA____. Section 7429 requires EPA to promulgate final CISWI standards by November 15, 1994. 42 U.S.C. §7429(a)(1)(D). Because the statutory deadline expired twenty years ago, EPA lacks authority to defer the standards.

This Court has jurisdiction under 42 U.S.C. §7607(b)(2) to review EPA's deferral of standards.

II. EPA UNLAWFULLY CLASSIFIED MODIFIED CISWI AS EXISTING CISWI.

EPA determined after proposal that units that begin burning waste will be classified as existing CISWI and subject to the existing-CISWI standards

regardless of whether the switch to burning waste increases emissions of a regulated pollutant. *Supra* 9. That determination is contrary to the plain language of the Act, which defines "new" units to include "modified" units, and defines "modified" units to include any unit at which, after the effective date of a standard, a "change in the method of operation of the unit . . . increases the amount of any air pollutant emitted by the unit for which standards have been established[.]" 42 U.S.C. §7429(g)(2), (g)(3)(B). *See also id.* §7429(g)(4) ("existing . . . unit means" a "unit which is not a . . . modified . . . unit."). EPA's blanket determination that all units that begin combusting waste are existing units is contrary to the plain language of the Act. *Landstar Express America v. FMC*, 569 F.3d 493, 500 (D.C. Cir. 2009) ("the agency cannot rewrite a statute").

EPA's blanket determination is also unreasonable at *Chevron* step two because EPA did not even consider §7429's definitional provisions, even after receiving comment on this issue. *Supra* 9. EPA fell far short of its obligation to consider this statutory question "in a detailed and reasoned fashion." *Rettig v. Pension Benefit Guar. Corp.*, 744 F.2d 133, 151 (D.C. Cir. 1984).

III. EPA'S FLOOR APPROACH IS UNLAWFUL AND ARBITRARY.

A. Setting Floors At The "Upper Prediction Limit" Or "Upper Limit" Is Unlawful And Arbitrary.

The Clean Air Act requires floors to reflect the "average" emission level achieved by the best-performing 12 percent of sources. 42 U.S.C. §7429(a)(2); *Sierra Club*, 479 F.3d at 880-81. EPA's 99 percent upper prediction limit and 99 percent upper limit do not reflect this "average" emission level.

1. Section 7429 Requires Floors To Reflect The Average Emission Level Achieved By The Best-Performers.

Clean Air Act §7429(a)(2) unambiguously requires floors to reflect the "average" emission level achieved by the relevant best-performing sources. 42 U.S.C. §7429(a)(2). By using the word "average," Congress demanded a measure of ordinary, usual perfomance—a central tendency—of the "emissions limitation achieved by the best performing 12 percent." *Id*. *See* WEBSTER'S SEVENTH NEW COLLEGIATE DICTIONARY (1971) 61 (defining "average" to mean "equaling an arithmetic mean," "approximating or resembling an arithmetic mean in being about midway between extremes," or "not out of the ordinary"). *See*, *e.g.*, *Leocal*, 543 U.S. at 9 ("When interpreting a statute, we must give words their 'ordinary or natural' meaning.") (*quoting Smith v. United States*, 508 U.S. 223, 228 (1993)). EPA itself has formally adopted an "interpretation of average emission limitation" acknowledging "that it is a measure of central tendency, such as the

arithmetic mean or the median." 68 Fed. Reg. 26,690, 26,700/1 (May 16, 2003), JA____ (emphasis added). *See* 59 Fed. Reg. 29,196, 29,199 (Mar. 9, 1994), JA____ (formal rule-making establishing that "EPA construes the word 'average' in [§7412] to authorize the Agency to use any reasonable method, in a particular factual context, of determining the central tendency of a data set") (emphasis added).[13] EPA readopted that interpretation in this rulemaking, saying "The average is a central value of a data set." 76 Fed. Reg. 15,724/2, JA____.

To satisfy the Clean Air Act, therefore, existing source floors must reflect the average (*i.e.*, "central tendency") of the emission levels achieved by the relevant best-performing sources.

2. The Emission Level EPA Expects All Tests By The Best Performers To "Fall Below" Is Not The Average Emission Level Achieved By Those Units.

Where EPA chooses to estimate the average emission level achieved by the best-performing sources, the agency must "demonstrate with substantial evidence—not mere assertions" that its floor approach satisfies the Clean Air Act's floor requirements. *NACWA*, 734 F.3d at 1131, 1136-37. Having chosen to set

[13] EPA has consistently reaffirmed that interpretation in its rulemakings. *E.g.*, 68 Fed. Reg.1276, 1286/3 (Jan. 9, 2003) (Plywood); 67 Fed. Reg. 47,894, 47,909/1 (July 22, 2002) (Clay Ceramics); 67 Fed. Reg. 30,848, 30,853/1 (May 8, 2002) (Semiconductors); 66 Fed. Reg. 58,610, 58,618/2 (Nov. 21, 2001) (Asphalt Processing).

floors at the 99 percent upper prediction limit and 99 percent upper limit in the CISWI rule, EPA had to demonstrate with substantial evidence that this approach yields floors reflecting the "average" emissions limitation achieved by the relevant best-performing CISWI, 42 U.S.C. §7429(a)(2). *NACWA*, 734 F.3d at 1131; *Ne. Md. Waste*, 358 F.3d at 954.

EPA did not even attempt to provide such a demonstration. Instead, the agency claimed discretion to set floors at a level it expects all the sources in the top 12 percent to meet at all times. *Supra* 10. Thus, by EPA's own description, the upper prediction is not an "average" but the level EPA expects any future compliance test by any CISWI in the top 12 percent to "fall below." *Id.*

Given its ordinary meaning and the meaning EPA itself has adopted through notice-and-comment rulemaking, "the word 'average' in [§7412(d)(3)]," allows EPA only to use a "reasonable method . . . of determining the central tendency of a data set." 59 Fed. Reg. 29,199, JA____. A level that EPA expects 99 out of 100 future tests by any source in the top 12 perent to "fall below" is not a measure of the "central tendency" of the emission levels achieved by this group of CISWI. Rather, it is a measure of one extreme, an upper limit on what any of those CISWI might emit. *See supra* 10-11.

Indeed, under EPA's interpretation, the agency is free to call any measure of the top 12 percent an "average." EPA already has asserted discretion not only to

call the 99 percent upper prediction limit an "average" but also to call the 99.9 percent upper prediction limit an "average." 76 Fed. Reg. 15,628/2, JA____. And nothing in the agency's interpretation of the statute would prevent it from similarly claiming that the "average" is a 99.9999 percent upper prediction limit that any source in the top 12 percent will fall below in 999,999 out of 1,000,000 future tests. Congress chose to require floors to reflect the "average" emission level achieved by the best-performing sources, and an agency interpretation that deprives that term of meaning must be rejected. *Leocal*, 543 U.S. at 12 ("we must give effect to every word of a statute wherever possible"); *Util. Air Regulatory Grp. v. EPA*, 744 F.3d 741, 746-47 (D.C. Cir. 2014) (rejecting interpretation that would render statutory requirement "pointless"). *See also Halverson v. Slater*, 129 F.3d 180, 189 (D.C. Cir. 1997).

EPA seeks to rely on *Mossville Environmental Action Now v. EPA*, 370 F.3d 1232, 1241-42 (D.C. Cir. 2004). 2011 Response to Comments at 614-15, JA____-__. The agency's reliance on that case is misplaced. *Mossville* did not absolve EPA from its statutory obligation to set floors that reflect the "average" emission level achieved by the best sources, as EPA appears to believe. Rather, it merely found that EPA may account for the variability in individual sources' emissions, *Mossville*, 370 F.3d 1241-42, a point that is not in dispute here.

3. EPA's Reliance On The Upper Prediction Limit Was Arbitrary And Capricious.

NACWA confirms that, to promulgate a non-arbitrary rule, "EPA 'must demonstrate with substantial evidence—not mere assertions'" that its floors satisfy the statute. 734 F.3d at 1131. Nowhere in the record has EPA demonstrated that its upper prediction limit is an accurate estimate of the "average" emission level achieved by the relevant best sources. By EPA's own description, the upper prediction limit is neither the average emission level achieved by the best-performing sources nor the emission level achieved by an average source. Rather, it is a level EPA expects any source in the top 12 percent—including the worst—to fall below in any future test. *Supra* 10-11. Only in "Superman Comics' Bizarro world" could such an extreme upper limit be viewed as an "average." *NRDC v. Daley*, 209 F.3d 747, 754 (D.C. Cir. 2000).

The results of EPA's approach confirm that the agency's upper predictions do not reflect the average emission levels actually achieved by the best-performing sources. For example, it generates estimates of the single best CISWI's performance that are worse than EPA's estimates of the performance of the top 12 percent of CISWI in the same subcategory, and produces different answers to the same question depending on how much data EPA feeds into it. *See NACWA*, 734 F.3d at 1144. EPA has tried to sweep this problem under the rug by taking a voluntary remand of some standards but, as this Court held in *NACWA*, there are

"flaws in the formula." *Id.* 1145. EPA scarcely demonstrates that the formula is now valid just by jettisoning some of its more egregious results.

Even if EPA could base floors at the upper bound instead of the average—which it cannot for the reasons given above —EPA's formula assumes that stack test results will vary randomly. That notion is refuted by the record, which shows that performance is not random but, rather, is constrained by the steps that different operators take to control their emissions, including fuels they choose to burn, controls they install, and the care with which they operate those controls. NRDC Comments 2, JA____. Indeed, in response to comments in the industrial boiler rule pointing out that emissions variability is not statistical but instead is based on different operating conditions of individual units, "EPA agree[d] with the commenter that the variability of emissions is not solely statistical." 76 Fed. Reg. 15,630/1, JA____. *See State Farm*, 463 U.S. at 43 (explanation is arbitrary where it "runs counter to evidence before the agency").[14]

EPA's ability to account for variability in individual sources' emissions does not give the agency *carte blanche* to set the floors at any level it likes. However EPA chooses to account for variability, the agency must demonstrate with

[14] EPA received this comment on the CISWI rule also, EPA-HQ-OAR-2003-0119-2047 (NACAA 2010 Comments) 15, JA____; NRDC Comments 2, JA____, but did not respond.

substantial evidence that its floors reflect the "average" emission level actually "achieved" by the best-performing sources—as the statute says they must. *See NACWA*, 734 F.3d at 1131.

B. EPA's New Rationale For The Upper Prediction Limit Is Unlawful And Arbitrary.

1. This Court Should Not Entertain Or Defer To EPA's New Rationale.

Contrary to EPA's representations when it sought a remand of the record, the Page Memo does in fact provide a series of new interpretations and assertions that, rather than "explaining" the prior record, instead contradict and revise the agency's earlier position.

In *NACWA*, the Court understood EPA to advance the "novel interpretation that 'average' means the average of a future 3-run compliance test." *Id.* 1143. To obtain a voluntary remand of the record in the present case, EPA argued that *NACWA* held that interpretation "might well be reasonable," and represented that it was merely going to provide further explanation, not advance a different interpretation. Reply in Support of Remand 6-7, JA____-__. Now, EPA disavows the interpretation it advanced in *NACWA* and interprets the term "average" variously to mean both "the <u>average emissions</u> over time" of the best-performing sources, Page Memo 3, JA____, and "the level of emissions that we are 99 percent confident is achieved by the <u>average source</u>," *id.* 4, JA____ (emphasis added).

In attempt to support these claims, EPA argues for the first time that the upper prediction limit is an "average" (in some undefined sense) because "the first element of the UPL equation is the average of the short-term emissions test data from the best performing units." *Id.* In addition, EPA imports data from a separate rule-making and argues that those data show its upper prediction approach in this rulemaking was "reasonable." *Cf.* Reply in Support of Remand at 4, JA____ (representing that EPA "will not be adding new data to the record").

For EPA to rely on a memorandum "entered on the docket too late for any meaningful public comment prior to promulgation" violates "both the structure and spirit" of Clean Air Act §7607(d). *Sierra Club v. Costle*, 657 F.2d 298, 398 (D.C. Cir. 1981). *See* 42 U.S.C. §7607(d)(3)–(d)(7)(A). "A purpose of notice-and-comment provisions under the APA (and presumably of the more elaborate procedural safeguards in [§7607(d)] of the Clean Air Act) is 'to ensure that affected parties have an opportunity to participate in and influence agency decision making at an early stage, when the agency is likely to give real consideration to alternative ideas.'" *NACWA*, 734 F.3d at 1148 (*quoting N.J. Dep't of Envt'l Protection v. EPA*, 626 F.2d 1038, 1049 (D.C. Cir. 1980)). *See generally Sierra Club*, 657 F.2d at 393-94 (explaining §7607(d) and its purpose). Accordingly, this Court should not even "entertain" the new statutory interpretations, factual assertions, and data that EPA's Page Memo contains, *Sierra Club*, 657 F.2d at 398,

let alone defer to them. *See Hays v. Sebelius*, 589 F.3d 1279, 1282 (D.C. Cir. 2009) (rejecting argument that "would permit an end-run around the statute").

2. EPA's New Rationale For The Upper Prediction Limit Is Without Merit.

In *NACWA*, this Court directed the agency to "to clarify how the upper prediction limit represents the 'average emission limitation achieved by the best performing 12 percent.'" 734 F.3d at 1143. Even if it could properly be considered, EPA's response to the remand leaves the agency's basis for contending the upper prediction limit is the average less clear, if possible, than before.

a) The *Post Hoc* Memo Offers No Comprehensible Interpretation Of The Statutory Language.

The Page Memo does not grapple with the meaning of the phrase "average emissions limitation achieved by the best performing 12 percent of the existing sources" or analyze the overall framework of §7429. *Cf.* 59 Fed. Reg. 29,196-200, JA____, __ (assessing text, legislative history, and overall statutory framework to conclude that statute requires "a measure of central tendency such as the arithmetic mean or median" of the "emission limitations achieved by each of the best performing 12 percent of existing sources"). But neither is it faithful to the interpretation of the statute EPA maintained before *NACWA*—or, indeed, to any single interpretation of the text. EPA concedes the upper prediction limit is an

"upper limit" on the relevant sources' emissions. Page Memo 3, JA____. Yet, at one point, the Memo implies that the upper prediction limit may satisfy the Act by describing the "average level" achieved by the best performers over time. *Id.* 4, JA____. And at others, EPA suggests it satisfies the Act by describing the emission level constantly achieved by a single "average source." *Id.* 4, 10, JA____, ____.

If EPA means, by this, to suggest that the statute requires something other than "a measure of central tendency such as the arithmetic mean or median" of "the emission limitations achieved by each of the best performing 12 percent of existing sources," 59 Fed. Reg. at 29,196, JA____, its Response Brief will provide the first explanation of what that interpretation is, and how the agency reached it. And even if the Memo's various contradictory statements could suffice to create a new "interpretation" of the statute (which they could not), and even if that new interpretation of the statute were entitled to *Chevron* deference (which it is not), claiming that the same statutory provision means different things "diverges from any realistic meaning of the statute." *Massachusetts v. U.S. Dep't of Transp.*, 93 F.3d 890, 893 (D.C. Cir. 1996). It is also arbitrary. *Dep't of Treasury v. FLRA*, 739 F.3d 13, 21 (D.C. Cir. 2014) ("set[ting] forth two inconsistent interpretations of the very same term" is arbitrary and capricious).

b) The *Post Hoc* Memo Offers No Basis To Conclude That The Upper Prediction Limit Produces An "Average."

Apart from the fact that EPA's two new claims that the upper prediction limit is an average conflict with each other, neither one of them "clarif[ies] how" the upper prediction limit is an "average." *NACWA*, 734 F.3d at 1143.

EPA's new claim that the upper prediction limit represents the "average emissions over time" lacks merit for the reasons given above. *See supra* 32-38. Everything in the Page Memo, aside from EPA's *ipse dixit* assertion that the upper prediction limit "provides results that reasonably represent . . . the average emissions limitation achieved by the best performing emissions units," Page Memo 4, JA____, confirms this point. The Memo describes the upper prediction limit as the level that "99 out of 100 performance tests" will "be below." *Id.* Indeed, the Page Memo not only describes the upper prediction limit as "an upper limit," *id.* 3, JA____, but defends it as "a limit that can be met by all the existing sources in the floor at all times." *Id.* 5, JA____ (emphasis added). Such a once-in-100 emissions level is not a measure of "average" emissions any more than a hundred-year flood can be a measure of 'average' water levels. *See NRDC*, 209 F.3d at 754 (only in "Bizarro world").

Nor can EPA support its new (and conflicting) claim that the upper prediction limit creates an estimate of the emissions limitation "achieved by the average source," Page Memo 4, JA____. The upper prediction limit produces a

number that EPA expects any source in the top 12 percent to meet in any future test. *Supra* 10-11. A floor that EPA expects even the worst performing source within the top 12 percent to meet in any future test is not, in any sense, representative of the "average" source in that group. *See NRDC*, 209 F.3d at 754.

Indeed, EPA's own long-standing interpretation of §7412's nearly identical language—adopted through notice-and-comment rulemaking—is that "Congress spoke with clarity," and that the relevant language "lends little support for an interpetation under which standards might be set at the emission limitation achieved by the worst performing member of the best performing 12 percent of existing sources," while the Act's legislative history "points strongly in the opposite direction" from any such "worst-of-the-best" construction. 59 Fed. Reg. at 29,199, JA____. EPA has consequently rejected any understanding of the word average that would encompass an emission limitation "achieved by each of the best performing 12 percent." *Id.* 29,197, JA____. Yet by its terms, that is precisely the function of the upper prediction limit. It is meant to yield an emissions limitation that any unit—even the worst—within the top 12 percent can meet "at all times." Page Memo 5, JA____. Nowhere does EPA even acknowledge its previous position, far less explain its apparent reversal. *See FCC v. Fox Television Stations*, 556 U.S. 502, 515 (2009) (agencies may not "depart from a prior policy *sub silentio*"); *Mountain Commc'ns v. FCC*, 355 F.3d 644, 648-49 (D.C. Cir. 2004)

(action arbitrary where agency "changed direction without explanation, indeed without even acknowledging the change").

Further, the authorities on which the agency seeks to rest its claim that the upper prediction is an average confirm that the upper prediction limit is not an average. *See* Page Memo 4 n.5, JA____ (*citing* Luko & Neubauer, Statistical Intervals Part 2: The Prediction Interval, *Standardization News* (Oct./Nov. 2011) (http://www.astm.org/standardization-news/data-points/statistical-intervals-part-2-so11.html); Gibbons & Coleman, *Statistical Methods for Detection and Quantification of Environmental Contamination* (2001)). Luko and Neubauer state that the prediction limit is "different" from an "interval for the mean." Luko & Neubauer 1. Likewise, Gibbons and Coleman expressly note the difference between a prediction limit and a "confidence interval for the mean." Gibbons & Coleman 31.

EPA argues that its upper prediction represents an average over time because "the first element of the UPL equation is the average of the short-term emissions test data from the best performing units." Page Memo 4, JA____. That is like saying that, over time, the average of 1, 2, and 3 = 2 + 500 because the "first element" in the equation (2) is the average of 1, 2, and 3. The mere fact that the first element of the equation is an average does not demonstrate that the final product of the equation is the average over time. EPA has provided no basis on

which it (or the Court) could reasonably conclude that just because its upper prediction equation starts with an average and then adds a number to "address variability," this equation yields the average over time. Rather, EPA merely asserts this point, demanding once again that the Court "rubber-stamp [its] invocation of statistics without [] explanation of the underlying principles or reasons why its formulas would produce an accurate result." *NACWA*, 734 F.3d at 1145.

EPA also argues that because the average is in the first half of the equation, the upper prediction limit "goes up or down" with average emissions. Page Memo 11, JA____. As the agency admits in the next breath, however, the upper prediction also goes up or down with factors that are entirely unrelated to the average: "the number of runs in the dataset" and "the number of runs averaged for each emissions test." *Id. See NACWA*, 734 F.3d at 1144-45. Indeed, the record shows that the number of runs in a dataset can make EPA's upper prediction go up (*i.e.*, get worse) even when the average emissions achieved go down (*i.e.*, get better). *See NACWA*, 734 F.3d at 1144.

Lastly, EPA imports an emissions test dataset from another rulemaking to argue that because "not all" individual test runs in that dataset are below it, the upper prediction limit for that dataset "represents the <u>average</u> emission level achieved by the best performing sources." Page Memo 14, JA____. As EPA concedes, however, "no source among the best performing 12 percent had an

overall average above the 99 percent UPL," and only the worst performing source in the top 12 percent had even one "3-run test average above the UPL."[15] *Id.* To argue that just because one test result is higher than the upper prediction limit the upper prediction limit is an "average" is—again—like arguing that because a river will sometimes reach its 100-year flood level, the 100-year flood level is an "average" height for the river.

EPA's inability to support its argument even with handpicked data from another rulemaking is revealing. Those data – as well as the relevant emissions data from this rulemaking – speak volumes. *See supra* 12-14. If, as EPA asserts, the upper prediction limit predicts the emissions limitation consistently achieved by the "average source" among the best performers, Page Memo 4, JA____ or (as EPA also, and contradictorily, contends) the "average emissions limitation" achieved by the best performing units – why do all the best performers fall below it, virtually all of the time?

C. EPA's 720-Hour Standards Are Unlawful and Arbitrary.

EPA compounded the unlawfulness of its floor approach by setting 720-hour average standards at the level of the highest single three-hour stack test predicted

[15] That four units had "one test run value" above EPA's upper prediction, *id.*, is irrelevant. According to EPA, the upper prediction limit produces an estimate of a 3-run test average, not a single "test run." *Id.*

for any unit in the top twelve percent. This weakened the stringency of the standards below the floor, the minimum stringency permitted under the Act. 42 U.S.C. §7429(a)(2).

1. 720-Hour Standards Are Less Stringent Than The Floor.

By setting standards that allow units' average emissions over 720 hours to reach the level of the highest predicted 3-hour stack test, *supra* 14-15, EPA sets standards that are "less stringent" than the emission limitation actually achieved by the best performing sources, in violation of §7429(a)(2). The 720-hour average enables CISWI to emit at all times at or near the level of the worst three-hour test predicted for the best performers. *Supra* 14. EPA does not claim that the best performers emit at this upper bound level at all times, and they demonstrably do not. *Supra* 12-14. To the contrary, EPA states that the upper prediction limit and upper limit yield the level 99 out of 100 three-hour stack tests will "fall below." *Supra* 10. The 720-hour standards, by contrast, enable CISWI to emit at or near that "upper bound" level at all times. This is far "less stringent" than the emission limitation achieved by the relevant best performing sources, 42 U.S.C. §7429(a)(2), and fails at *Chevron* step one.

The floor standards are also unreasonable at *Chevron* step two because EPA failed even to inquire whether its approach on reconsideration was consistent with the stringency requirements of the statute. EPA received comments that switching

to a 720-hour averaging period authorizes emissions "much higher than those of the best performing units that the standard is required to reflect." *Supra* 16. EPA's response was completely "divorced from the statutory text." *Massachusetts v. EPA*, 549 U.S. 497, 532-35 (2007). Rather than address the issue of whether the resulting standard is weaker than the statutory floor, EPA finalized the proposed switch because it had done so in the industrial boilers rule, and to give operators greater "flexibility." 76 Fed. Reg. 80,465/1, JA____. EPA admitted that even control system failure would now sometimes constitute compliance with the standards. *Id.* (claiming that control system failure will violate the more-"flexible" standard "almost as much," but not always). EPA failed to explain how this approach "comports with the governing statute." *Se. Ala. Med. Ctr. v. Sebelius*, 572 F.3d 912, 920 (D.C. Cir. 2009).

2. 720-Hour Standards Are Arbitrary.

EPA's decision to allow 720-hour averaging without adjusting the numeric limits is also arbitrary. EPA has repeatedly acknowledged that standards with a longer averaging period are less stringent than standards with a shorter averaging period. *E.g.*, 77 Fed. Reg. 39,946/3, JA____ ("[A] limit expressed as an annual average is inherently less stringent that the same limit expressed as a 30-day average."). EPA has accordingly required a lower numeric level to compensate for the reduced stringency of a longer averaging period. *See* 73 Fed. Reg. 58,481,

58,484/1, JA____ (Oct. 7, 2008) (permitting states to "consider the use of averaging" *only* "in conjunction with more stringent limits"); 73 Fed. Reg. 40,230, 40,233/2, JA____ (July 14, 2008) (same); 66 Fed. Reg. 51,098, 51,124/2, JA____ (Oct. 5, 2001) (Agency would need "to set more stringent emissions standards" to allow averaging while still "achiev[ing] the 'greatest degree of emission reduction'" identified). Because EPA gives no reason why the same approach is not necessary here, EPA's standards are arbitrary. *Transactive*, 91 F.3d at 237 ("A long line of precedent has established that an agency action is arbitrary when the agency offered insufficient reasons for treating similar situations differently.").

In this very rule, EPA stated with respect to even 24-hour averages that "24-hour block averages . . . would be inconsistent with the sampling time for the stack test data and the test methods used to determine compliance with the final standards." 76 Fed. Reg. 15,728/2, JA____. *See also id.* ("A 3-hour average is not comparable to data obtained over a 24-hour sampling with a [continuous emissions monitor]."). EPA makes no attempt to reconcile its ultimate embrace of 720-hour averages with its recognition that even 24-hour averages would be inconsistent with floors calculated based on three-hour stack tests. EPA's reasoning "is internally inconsistent and therefore arbitrary." *Bus. Roundtable v. SEC*, 647 F.3d 1144, 1153 (D.C. Cir. 2011).

IV. EPA'S REJECTION OF ACHIEVABLE BEYOND-THE-FLOOR STANDARDS IS UNLAWFUL AND ARBITRARY.

A. Rejecting Undisputedly Achievable Standards Is Unlawful And Arbitrary.

Standards for CISWI must require the "maximum" reduction in emissions that is "achievable" considering cost and other factors. 42 U.S.C. §7429(a)(2). EPA violated this provision by failing to require reductions that are undisputedly achievable. First, EPA refused to require reductions it concedes are achievable with technology it predicts all units will install. *Supra* 20-21. EPA admits that kilns and energy recovery units will install high efficiency fabric filters and that this technology will achieve particulate matter emissions levels dramatically lower than the floor, but refused to set the standard at that level. *Id.* Second, EPA refused to require reductions it concedes are achievable using the technology it predicts most units will install. *Supra* 21-22. EPA neither claims nor substantiates any claim that the remaining sources cannot install the very same technology. Because these emissions reductions are undisputedly "achievable," they are required by the plain language of §7429(a)(2). *Chevron*, 467 U.S. at 842-43 ("the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress.").

EPA's rejection of undisputedly achievable reductions is also unreasonable and arbitrary, because EPA has not explained how its approach is consistent with

the statutory command to require the maximum reduction achievable. *See Se. Ala. Med.*, 572 F.3d at 920.

B. Rejecting Standards For Reasons Unrelated To Achievability Is Unlawful And Arbitrary.

EPA also rejected emissions standards EPA does not even claim are expensive, let alone unachievably so. EPA concedes that further carbon monoxide reductions are achievable at "low cost" using linkageless boiler management systems, but rejected these reductions because limited data made it allegedly "uncertain" how the reductions compared to reductions from non-waste-burning boilers. *Supra* 23. EPA rejected reductions in sulfur dioxide from kilns that it admits are "within the cost effective range we find reasonable" simply because it had not quantified the costs of water and sorbent and because "some uncertainty exists." *Id*. EPA did not claim that these unquantified or uncertain costs are difficult to quantify or even that they are significant, let alone that they render these emissions reductions unachievable. EPA also rejected further reductions in carbon monoxide from coal-fired energy recovery units because regenerative thermal oxidizers require more natural gas than an alternative technology EPA also rejected. *Supra* 24. EPA did not suggest that these natural gas requirements are high in an absolute sense or relevant to achievability.

EPA does not explain how any of these considerations are even relevant to achievability, let alone determinative. None of EPA's reasons are consistent with the statutory obligation to require the "maximum" reduction "achievable." 42 U.S.C. §7429(a)(2). *See Nat'l Lime*, 233 F.3d at 635 (rejection of beyond-the-floor technology based on additional demand for natural gas unlawful absent evidence "that the supply of natural gas is inadequate"). EPA simply grasps for any reason whatsoever to reject these standards, in an admitted effort to "minimiz[e] adverse economic impact wherever possible." 76 Fed. Reg. 15,732/1, JA____. This approach "substitut[es] EPA's desires for the plain text" of §7429(a)(2). *New Jersey v. EPA*, 517 F.3d 574, 582 (D.C. Cir. 2008).

Moreover, EPA's approach is unreasonable at *Chevron* step two and arbitrary. EPA neither offers an interpretation of the statutory language that would encompass its reasons for rejecting emissions reductions for CISWI, nor indeed makes any attempt to reconcile its decisions on individual standards with the statutory test. EPA failed to explain how its approach "comports with the governing statute." *Se. Ala. Med.*, 572 F.3d at 920.

C. EPA's Denial Of Reconsideration On These Issues Violates §7607(d)(7)(B).

Objections to EPA's failure to require achievable beyond-the-floor emissions reductions were squarely raised in comments on the CISWI standards

proposed in 2010. NRDC Comments 11-16, JA____-__. This included objections to EPA's failure to set standards that reflect emissions reductions that are concededly achievable, failure to quantify costs, failure to collect data, vague invocation of energy requirements and uncertainty, and conclusory pronouncements that costs are unreasonable. *Id.* 11, 13-15, JA____, ____-___. Because they were raised in comments, these objections can be raised in the present case. 42 U.S.C. §7607(d)(7)(B). Yet EPA modified the justifications for its rejection of beyond-the-floor standards in the December 2011 final rule. 76 Fed. Reg. 15,7291-32/2, JA____-___. Commenters petitioned for reconsideration, which EPA denied. *Supra* 20.

If the Court finds that EPA's beyond-the-floor approach is not properly before it, it should also find that EPA's refusal to reconsider the issue violates §7607(d)(7)(B) and reverse the denial under §7607(d)(9)(D). It was impracticable to object during the comment period to the justifications EPA first articulated in the final rule. And EPA's standards would have been substantially stronger had EPA required the maximum achievable emission reductions. Under these circumstances, EPA "shall convene a proceeding for reconsideration of the rule." 42 U.S.C. §7607(d)(7)(B).

CONCLUSION

Environmental Petitioners respectfully request that the challenged rules be remanded with instruction that EPA issue revised rules free of the defects identified above.

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Respectfully submitted,

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CERTIFICATE REGARDING WORD LIMITATION

Counsel hereby certifies that, in accordance with Federal Rule of Appellate Procedure 32(a)(7)(C), the foregoing Proof Opening Brief for Environmental Petitioners contains 11,177 words, as counted by counsel's word processing system, and thus complies with the applicable word limit established by the Court.

DATED: October 2, 2014

/s/Neil Gormley
Neil Gormley

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of October, 2014, I have served the foregoing **Proof Opening Brief for Environmental Petitioners** on all registered counsel through the Court's electronic filing system (ECF).

/s/Neil Gormley
Neil Gormley