ORAL ARGUMENT NOT YET SCHEDULED

No. 11-1108 (and consolidated cases)

In the
United States Court of Appeals
for the
District of Columbia Circuit

UNITED STATES SUGAR CORPORATION

Petitioner,

vs.

ENVIRONMENTAL PROTECTION AGENCY

Respondent.

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

OPENING BRIEF OF INDUSTRY PETITIONERS

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Circuit Rule 28(a)(1), Industry Petitioners state as follows:

Parties, Intervenors, and *Amici*

Petitioners:

Case No. 11-1108: United States Sugar Corp.

Case No. 11-1124: American Forest and Paper Association, National Association of Manufacturers, American Coke and Coal Chemicals Institute, American Iron & Steel Institute, American Municipal Power, Inc., 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, and Treated Wood Council

Case No. 11-1134: American Petroleum Institute

Case No. 11-1142: American Chemistry Council

Case No. 11-1145: Coalition for Responsible Waste Incineration

Case No. 11-1159: Council of Industrial Boiler Owners

Case No. 11-1165: Utility Air Regulatory Group

Case No. 11-1172:	Southeastern Lumber Manufacturers Association, Inc.
Case No. 11-1174:	JELD-WEN, Inc.
Case No. 11-1181:	Sierra Club
Case No. 13-1086:	JELD-WEN, Inc.
Case No. 13-1087:	Eastman Chemical Company
Case No. 13-1091:	American Chemistry Council
Case No. 13-1092:	United States Sugar Corporation
Case No. 13-1096:	American Petroleum Institute
Case No. 13-1097:	Utility Air Regulatory Group
Case No. 13-1098:	Louisiana Environmental Action Network, Sierra Club, Clean Air Council, Partnership for Policy Integrity, and Environmental Integrity Project
Case No. 13-1099:	Council of Industrial Boiler Owners and American Municipal Power, Inc.
Case No. 13-1100:	American Forest and Paper Association, American Wood Council, Biomass Power Association, Chamber of Commerce of the United States of America, Corn Refiners

Association, National Association of Manufacturers, National Oilseed Processors Association, Rubber Manufacturers Association, and Southeastern Lumber Manufacturers Association, Inc.

Case No. 13-1103: Coalition for Responsible Waste Incineration

Respondent:

The U.S. Environmental Protection Agency is the Respondent in all of these cases.

Gina McCarthy, Administrator, U.S. Environmental Protection Agency, is also named as a Respondent in Nos. 11-1134, 11-1181, and 13-1098.

Intervenors:

American Chemistry Council, American Coke and Coal Chemicals Institute, American Forest and Paper Association, American Home Furnishings Alliance, Inc., American Iron & Steel Institute, American Municipal Power, Inc., American Petroleum Institute, American Wood Council, Auto Industry Forum, Biomass Power Association, Chamber of Commerce of the United States of America, Clean Air Council, Coalition for Responsible Waste Incineration, Corn Refiners Association, Council of Industrial Boiler Owners, Eastman Chemical Company, Energy Recovery

Council, Florida Sugar Industry, Hovensa, L.L.C., JELD-WEN, Inc., National Association of Manufacturers, National Oilseed Processors Association, Partnership for Policy Integrity, Rubber Manufacturers Association, Sierra Club, Southeastern Lumber Manufacturers Association, Inc., Tesoro Hawaii Corporation, Utility Air Regulatory Group, Waste Management, Inc., and WM Renewable Energy, LLC are intervenor-respondents in No. 11-1108.

American Chemistry Council, American Coke and Coal Chemicals Institute, American Forest and Paper Association, American Iron & Steel Institute, American Municipal Power, Inc., American Petroleum Institute, American Wood Council, Auto Industry Forum, Biomass Power Association, Chamber of Commerce of the United States of America, Clean Air Council, Coalition for Responsible Waste Incineration, Corn Refiners Association, Council of Industrial Boiler Owners, Eastman Chemical Company, National Association of Manufacturers, National Oilseed Processors Association, Partnership for Policy Integrity, Rubber Manufacturers Association, Sierra Club, Southeastern Lumber Manufacturers Association, Inc., United States Sugar Corporation, Waste Management, Inc., and WM Renewable Energy, LLC are intervenor-respondents in No. 13-1086.

JELD-WEN, Inc. is an intervenor-respondent in No. 13-1087.

Rulings under Review

These petitions challenge EPA's final rules, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters," 78 FR 7,138 (Jan. 31, 2013) and "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters," 76 FR 15,608 (Mar. 21, 2011).

Related Cases

Each of the petitions for review consolidated under No. 11-1108 is related. These cases consist of Case Nos. 11-1124, 11-1134, 11-1142, 11-1145, 11-1159, 11-1165, 11-1172, 11-1174, 11-1181, 13-1086, 13-1087, 13-1091, 13-1092, 13-1096, 13-1097, 13-1098, 13-1099, 13-1100, and 13-1103. The consolidated cases on review have not previously been reviewed by this or any other Court.

Case No. 13-1256 was severed from the cases consolidated under Case No. 11-1108 on October 16, 2013. Case No. 13-1256 addresses issues raised in Case No. 11-1108 and consolidated cases that are currently under reconsideration by Respondent. That case is being held in abeyance pending administrative reconsideration proceedings. *See* Order Granting Respondent's Motion to Govern (Doc. #1461576).

DISCLOSURE STATEMENTS

Pursuant to Federal Rule of Appellate Procedure 26.1 and D.C. Circuit Rule 26.1, Petitioners provide the following disclosures:

American Chemistry Council ("ACC") is a not-for-profit trade association that participates on its members' behalf in administrative proceedings and in litigation arising from those proceedings. ACC represents the leading companies engaged in the business of chemistry. ACC has no outstanding shares or debt securities in the hands of the public and has no parent company. No publicly held company has a ten percent (10%) or greater ownership interest in ACC.

American Forest and Paper Association ("AF&PA") serves to advance a sustainable U.S. pulp, paper, packaging, and wood products manufacturing industry through fact-based public policy and marketplace advocacy. AF&PA member companies make products essential for everyday life from renewable and recyclable resources and are committed to continuous improvement through the industry's sustainability initiative - *Better Practices, Better Planet 2020*. The forest products industry accounts for approximately 4 percent of the total U.S. manufacturing GDP, manufactures approximately $210 billion in products annually, and employs nearly 900,000 men and women. The industry meets a payroll of approximately $50 billion annually and is among

the top 10 manufacturing sector employers in 47 states. No parent corporation or publicly held company has a ten percent (10%) or greater ownership interest in AF&PA.

American Municipal Power, Inc. ("AMP") is a non-profit corporation headquartered in Columbus, Ohio, that provides services on a cooperative, non-profit basis for its member communities operating municipal electric systems. AMP has no parent corporation and no publicly held company has a ten percent (10%) or greater ownership interest in AMP.

American Petroleum Institute ("API") is a national trade association that represents all aspects of America's oil and natural gas industry. API has over 600 members, from the largest major oil company to the smallest of independents, from all segments of the industry, including producers, refiners, suppliers, pipeline operators and marine transporters, as well as service and supply companies that support all segments of industry. API has no parent company and no publicly held company has a ten percent (10%) or greater ownership interest in API.

American Wood Council ("AWC") is the voice of North American traditional and engineered wood products, representing over 75% of the industry. From a renewable resource that absorbs and sequesters carbon, the wood products industry makes products that are essential to everyday life and

employs over one-third of a million men and women in well-paying jobs. AWC's engineers, technologists, scientists, and building code experts develop state-of-the-art engineering data, technology, and standards on structural wood products for use by design professionals, building officials, and wood products manufacturers to assure the safe and efficient design and use of wood structural components. AWC also provides technical, legal, and economic information on wood design, green building, and manufacturing environmental regulations advocating for balanced government policies that sustain the wood products industry.

Biomass Power Association ("BPA") is a non-profit, national trade association headquartered in Portland, Maine, and organized under the laws of the state of Maine. BPA has no parent corporation and no publicly held company has a ten percent (10%) or greater ownership interest in BPA. BPA serves as the voice of the U.S. biomass industry in the federal public policy arena. BPA is comprised of 23 member companies who either own or operate biomass power plants and 16 associate and affiliate members who are suppliers to or customers of the industry. BPA's member companies represent approximately 80 percent of the U.S. biomass to electricity sector.

The Chamber of Commerce of the United States of America ("U.S. Chamber") is a non-profit corporation organized and existing under the laws

of the District of Columbia. U.S. Chamber is not a publicly held corporation and no corporation or other publicly held entity holds more than ten percent (10%) of its stock. U.S. Chamber is the world's largest business federation. U.S. Chamber represents 300,000 direct members and indirectly represents the interests of more than 3 million companies and professional organizations of every size, in every industry, from every region of the country. An important function of U.S. Chamber is to represent the interests of its members in matters before the courts, Congress, and the Executive Branch. Many of U.S. Chamber's members are subject to the regulations at issue in this matter.

Coalition for Responsible Waste Incineration ("CRWI") is a non-profit trade association as described in Circuit Rule 26.1(b) that provides information about, and conducts advocacy regarding, the use of high temperature combustion which is used at facilities owned or operated by CRWI members. Some of CRWI's members are regulated by the rule at issue in this proceeding. No publicly held corporation owns ten percent (10%) or more of CRWI and CRWI does not have a parent corporation.

Corn Refiners Association ("CRA") is a non-profit, national trade association headquartered in the District of Columbia. CRA has no parent corporation. CRA serves as the voice of the U.S. corn wet millers industry in

the public policy arena. CRA is comprised of 6 member companies with 23 plants located throughout the United States.

Council of Industrial Boiler Owners ("CIBO") is a trade association of industrial boiler owners, architect-engineers, related equipment manufacturers, and University affiliates with over 100 members representing 20 major industrial sectors. CIBO has not issued shares to the public, although many of CIBO's individual members have done so.

Eastman Chemical Company ("Eastman") is a publicly traded company (symbol EMN), incorporated in the state of Delaware, with its headquarters in the city of Kingsport, Tennessee. Eastman has no parent corporation and based upon current ownership filings with the Securities and Exchange Commission, no publicly held company has a ten percent (10%) or greater ownership interest in Eastman.

JELD-WEN Inc. is a window and door manufacturer headquartered in Oregon. JELD-WEN is a privately held company. The parent company of its operations is JELD-WEN Holding, inc., a privately held company. Onex Corporation (TSX: OCX), a publicly held corporation, holds more than 10 percent interest in JELD-WEN Holding, inc.

National Association of Manufacturers ("NAM") is the nation's largest industrial trade association, representing small and large manufacturers in

every industrial sector and in all 50 states. The NAM's mission is to enhance the competitiveness of manufacturers by shaping a legislative and regulatory environment conducive to U.S. economic growth and to increase understanding among policymakers, the media and the general public about the vital role of manufacturing to America's economic future and living standards. The NAM has no parent company and no publicly held company has a ten percent (10%) or greater ownership interest in the NAM.

National Oilseed Processors Association ("NOPA") is a non-profit, national trade association headquartered in the District of Columbia. NOPA has no parent corporation and no publicly held company has a ten percent (10%) or greater ownership interest in NOPA. NOPA represents 13 companies engaged in the production of food, feed, and renewable fuels from oilseeds, including soybeans. NOPA's member companies process more than 1.6 billion bushels of oilseeds annually at 63 plants located in 19 states throughout the country, including 57 plants that process soybeans.

Rubber Manufacturers Association ("RMA") is a non-profit, national trade association headquartered in the District of Columbia. RMA has no parent corporation and no publicly held company has a ten percent (10%) or greater ownership interest in RMA. RMA is the national trade association representing tire manufacturing companies that manufacture tires in the

United States. RMA member companies include: Bridgestone Americas, Inc.; Continental Tire the Americas, LLC; Cooper Tire & Rubber Company; The Goodyear Tire & Rubber Company; Michelin North America, Inc.; Pirelli Tire North America; Toyo Tire Holdings of Americas Inc. and Yokohama Tire Corporation. RMA's eight member companies operate 30 tire manufacturing plants, employ thousands of Americans and ship over 90 percent of the original equipment tires and 80 percent of the replacement tires sold in the United States.

Southeastern Lumber Manufacturers Association ("SLMA") is a trade association that represents independently owned sawmills, lumber treaters, and their suppliers in 17 states throughout the Southeast. SLMA's members produce more than 2 billion board feet of solid sawn lumber annually, employ over 12,000 people, and responsibly manage over a million acres of forestland. These sawmills are often the largest job creators in their rural communities, having an economic impact that reaches well beyond people that are in their direct employment. The association serves as the unified voice of its members on state and federal government affairs and offers various other programs including networking events, marketing and management, and operational issues. No parent corporation and no publicly held company have a ten percent (10%) or greater ownership interest in SLMA.

The Treated Wood Council ("TWC") is the international trade association of the wood treating industry, serving more than 440 companies and associations related to the production of treated wood. TWC's members both produce and use biomass-based renewable energy sources. TWC has no parent companies and no publicly held company has a ten percent (10%) or greater ownership interest in TWC.

United States Sugar Corporation ("U.S. Sugar Corp.") has no parent corporation and no publicly held corporation owns ten percent (10%) or more of its stock.

Utility Air Regulatory Group ("UARG") is a not-for-profit association of individual electric generating companies and national trade associations that participates on behalf of its members collectively in administrative proceedings under the Clean Air Act, and in litigation arising from those proceedings, that affect electric generators. UARG has no outstanding shares or debt securities in the hands of the public and has no parent company. No publicly held company has a ten percent (10%) or greater ownership interest in UARG.

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GLOSSARY OF TERMS

CAA	Clean Air Act
CO	Carbon Monoxide
EPA	United States Environmental Protection Agency
HAPs	Hazardous Air Pollutants
HCl	Hydrogen Chloride
Hg	Mercury
MACT	Maximum Achievable Control Technology
Utility MATS	Utility Mercury and Air Toxics Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NSPS	New Source Performance Standards
PM	Particulate Matter
PPM	Parts Per Million

STATUTES AND REGULATIONS

Relevant statutes and regulations are reproduced in the accompanying Addendum.

JURISDICTIONAL STATEMENT

Industry Petitioners sought review in this Court of two final EPA actions pursuant to CAA §307(b)(1):

- *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*; Final Rule; Notice of Final Action on Reconsideration, 78 FR 7,138 (January 31, 2013); and
- *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters*; Final Rule, 76 FR 15,608 (March 21, 2011).

Petitions for review of each of these rules were filed within the 60-day period prescribed by CAA §307(b)(1). This Court has jurisdiction under that provision.

STATEMENT OF ISSUES

1. Whether EPA exceeded its authority by requiring existing sources to perform an energy assessment on equipment that is not part of the defined source category, or otherwise acted arbitrarily and capriciously, by requiring an energy assessment without satisfying the requirements for a beyond-the-floor standard or work practice requirement.

2. Whether EPA acted beyond its statutory authority, or otherwise arbitrarily and capriciously, by setting maximum achievable control technology floors for specific source categories that are not based on what the best performing sources actually achieved in practice for all pollutants.

3. Whether EPA acted unlawfully, or otherwise arbitrarily and capriciously, when it established emission standards that failed to account for emissions during malfunctions.

4. Whether EPA acted arbitrarily and capriciously when it failed to establish a work practice standard for organic pollutants from industrial boilers, despite its conclusion that similar emissions from utility boilers necessitated a work practice in the Utility MATS rule.

5. Whether EPA acted arbitrarily and capriciously by failing to include a health-based emission limit for eligible threshold pollutants

(hydrogen chloride or manganese) after vigorously defending such limits in 2004.

STATEMENT OF THE CASE

Industry Petitioners[1] seek partial vacatur and partial remand of an Environmental Protection Agency ("EPA") rule titled "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters." 76 FR 15,608 (Mar. 21, 2011)("2011 Rule")(JA__) as amended upon reconsideration at 78 FR 7,138 (Jan. 31, 2013)("2013 Amendments")(JA__). The current iteration of this rule requires over 15,000 industrial, commercial, and institutional boilers and process heaters to meet emissions standards for hazardous air pollutants ("HAPs") that reflect the application of maximum achievable control technology ("MACT"). It will impose $4.7 billion in capital costs and $1.5 billion in annual costs.

I. PROCEDURAL HISTORY

EPA first promulgated emissions standards for industrial, commercial, and institutional boilers and process heaters in 2004. 69 FR 55,218 (Sept. 13, 2004)("2004 Rule")(JA__). This Court vacated the standards in 2007. *NRDC v. EPA*, 489 F.3d 1250, 1261-1262 (D.C. Cir. 2007).

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[1] ACC; AF&PA; AMP; API; AWC; BPA; CRWI; CRA; CIBO; Eastman; JELD-WEN, Inc.; NAM; NOPA; RMA; SLMA; TWC; U.S. Chamber; U.S. Sugar Corp.; and UARG.

EPA proposed a new rule setting emissions standards for these sources in 2010, and promulgated the final rule on March 21, 2011. 75 FR 32,006 (June 4, 2010) ("2010 Proposed Rule")(JA__); 76 FR 15,608 (Mar. 21, 2011)("2011 Rule")(JA__). That same day EPA proposed to reconsider aspects of the 2011 Rule it had just finalized. 76 FR 15,266 (Mar. 21, 2011) ("2011 Reconsideration")(JA__). Several Industry Petitioners also petitioned EPA to reconsider aspects of the 2011 Rule.

EPA promulgated final amendments from its reconsideration in early 2013. 76 FR 80,598 (Dec. 23, 2011) ("2011 Proposed Amendments")(JA__); 78 FR at 7,138 ("2013 Amendments")(JA__). Certain Industry Petitioners sought reconsideration of the 2013 Amendments. EPA responded to these petitions on August 22, 2013, by representing to the Court that it would reconsider certain specified issues and agree to propose clarifying changes to address some of the issues raised in the 2013 reconsideration petitions. Resp. Reply in Supp. of Mot. to Govern at 2-3 (Doc. #1453611). The issues pending reconsideration and/or revision have been severed into Case No. 13-1256 and are being held in abeyance pursuant to the Court's Order of October 16, 2013 (Doc. #1461576).

Numerous petitioners sought review of the 2011 Rule in this Court. Those petitions were consolidated into Case No. 11-1108 and held in abeyance

pending the 2011 reconsideration. Order (Doc. #1322256). The 2011 reconsideration was completed with issuance of the 2013 Amendments. Petitions for review of the 2013 Amendments were consolidated into Case No. 13-1086, and then further consolidated into the 2011 litigation (Case No. 11-1108). Order (Doc. #1436267). Therefore, all issues raised during the 2011 Rule and the 2013 Amendments are now before the Court, except for those expressly severed into Case No. 13-1256.

II. SPECIFIC REVIEW SOUGHT BY PETITIONERS

A. Energy Assessment

In 2010, EPA proposed, for the first time ever in a MACT rule, a requirement that existing sources conduct an "energy assessment." 75 FR at 32,014(JA__). EPA categorized the energy assessment ("Assessment") requirement as a "beyond-the-floor option for HAP emissions," explaining its inclusion by defining the Assessment as "process changes, substitution of materials or other modifications" under §112(d)(2). *Id*. at 32,026(JA__). Despite comments challenging EPA's legal authority to require Assessments and their rationality, the 2011 Rule retained the requirement with some adjustments. 76 FR at 15,613(JA__).

Largely rejecting petitions for reconsideration challenging the Assessment requirement,[2] EPA retained it with slight changes in the 2013 Amendments. *See* 78 FR at 7,188(JA__). As finalized, the Assessment requires an evaluation and preparation of a "comprehensive report" that extends well beyond the defined source category that is subject to regulation, including:

- specifications of energy use systems and unusual operating constraints;
- architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage;
- facility's energy management practices and recommendations for improvements;
- major energy conservation measures and energy savings potential; and
- ways to improve efficiency, the cost of specific improvements, benefits, and time frame for recouping those investments.

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[2] ACC Petition for Reconsideration, EPA-HQ-OAR-2002-0058-3332(JA__); CIBO Petition for Reconsideration, EPA-HQ-OAR-2002-0058-3334(JA__); AF&PA et al. Petition for Reconsideration, EPA-HQ-OAR-2002-0058-3337(JA__).

78 FR at 7,198-99(JA__); 40 C.F.R. Part 63, Subpart DDDDD, Tbl. 3 (as amended).

B. Pollutant-by-Pollutant Approach

For both new and existing sources, CAA §112(d) instructs EPA to base emissions standards on what has been "achieved" by one or more actual "sources." *See* CAA §112(d)(3) ("achieved in practice by the best controlled similar source"); §112(d)(3)(A) ("the average emission limitation achieved by the best performing 12 percent of the existing sources…). In this rulemaking, EPA separately identified the best performers for each individual pollutant and then set MACT standards using different groups of sources for each pollutant. For at least two subcategories of sources – new heavy oil-fired units and existing stoker coal-fired units – this approach imposed a suite of standards that have not been achieved in practice by the best performing similar sources, as required by CAA §112(d).

C. Malfunctions

Since 1970, the CAA has directed EPA to establish "achievable" technology-based performance standards under CAA §§111(a)-(b) to govern

emissions from categories of new and modified sources.[3] As EPA has issued such emission standards, this Court has required EPA to account for equipment malfunctions[4] to assure achievability of the standards. *See, e.g.*, *National Lime Ass'n v. EPA*, 627 F.2d 416, 430 (D.C. Cir. 1980)("*National Lime I*"). EPA adopted a rule in 1973 that exempts sources from complying with numeric limits in §111(b) standards (unless otherwise specified for a particular category) if a malfunction keeps the source from achieving the numeric limit.[5]

Congress's initial attempt to control HAP emissions under CAA §112 required EPA to set standards at a level that "provides an ample margin of safety to protect the public health from such hazardous air pollutant."[6] This risk-based approach was not very successful,[7] and Congress amended §112 in

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[3] Clean Air Act of 1970, Pub. L. 91-604, §4, 84 Stat. 1683 (codified as amended at 42 U.S.C. §7411). The achievability requirement appears in CAA §111(a)(1).

[4] EPA defines a malfunction as a no-fault event: a "malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions." 40 C.F.R. §63.2; *see also id*. at §60.2.

[5] 38 FR 28,564 (Oct. 15, 1973)(final rule); 42 FR 57,125 (Nov. 1, 1977) (clarification).

[6] Pub. L. 91-604, §4, 84 Stat. 1685 (§112(b)(1)(B)).

[7] *See Sierra Club v. EPA*, 353 F.3d 976, 979-980 (D.C. Cir. 2004).

1990 to follow the §111(b) approach by requiring EPA to set "achievable" technology-based standards, followed by risk-based standards, if necessary, to protect human health and welfare. *See* 42 U.S.C. §§7412(d)(2)-(3) and (f); *see also* 58 FR 42,760, 42,762 (Aug. 11, 1993)(§112(d) standards are "essentially equivalent to" §111(b) standards).

When EPA implemented this new approach, it again addressed malfunctions mainly by adopting a parallel general provision exempting facilities from §112 standards during such periods, unless otherwise specified as to particular source categories.[8] In 2008, however, the Court vacated that exemption because it had not been adopted pursuant to the criteria in CAA §112. *Sierra Club v. EPA*, 551 F.3d 1019, 1027-1028 (D.C. Cir. 2008), *cert. denied, American Chemistry Council v. EPA*, 130 S. Ct. 1735 (2010)("*General Provisions Decision"*). According to the Court, EPA had two ways to set standards under CAA §112 — numeric standards under §112(d) or "work practice standards" under §112(h) — but it had not purported to adopt the "duty to minimize" emissions under either. 551 F.3d at 1028.

When EPA proposed the Boiler MACT rules in 2010, it proposed numeric standards that apply "at all times." 75 FR at 32,012(JA__). EPA adopted that approach despite objections and requests that the Agency either

[8] 59 FR 12,408 (Mar. 16, 1994).

factor malfunctions into the numeric standards or establish "work practice standards" for such periods. *See, e.g.,* CRWI 2010 Comments at 20-22, EPA–HQ-OAR-2002-0058-2824(JA__); ACC 2010 Comments at 71-72, EPA-HQ-OAR-2002-0058-2792(JA__). EPA recognized that, despite proper design, operation, and maintenance of a facility, malfunctions could at times render the standard unachievable. 76 FR at 15,613(JA__). Nevertheless, relying on a Clean Water Act case, and ignoring precedent interpreting the similar CAA §111 requirements, EPA claimed that it is not required to factor emissions during malfunction periods into development of standards under §112. *Id.* Moreover, EPA asserted that factoring malfunctions into its standard-setting was too difficult. *Id.*

Acknowledging the inevitability of malfunctions, EPA created an affirmative defense for enforcement proceedings to negate civil penalties for violations of its numeric standards resulting from malfunctions. 76 FR at 15,613(JA__). This Court recently held, however, that EPA lacks jurisdiction to place such a limit on the civil penalties a district court may impose. *NRDC v. EPA*, 749 F.3d 1055, 1063 (D.C. Cir. 2014).

D. Work Practices for Organic HAP for Coal-Fired Boilers

In the 2010 Proposed Rule, EPA established CO emission limits instead of limits for individual non-dioxin organic HAP. EPA selected CO as a

surrogate for non-dioxin organic HAP based on the Agency's belief that conditions favoring low CO emission levels should also favor reduction of organic HAP emissions. 75 FR at 32,018(JA__). At least two parties submitted comments urging EPA to invoke its authority under CAA §112(h) to adopt a work practice standard, such as a boiler tune-up to optimize combustion efficiency, rather than a CO limit.

Despite those comments, EPA published the 2011 Rule on March 21, 2011, which contained CO limits for non-dioxin organic HAP similar to those in the 2010 Proposed Rule. 76 FR at 15,687-91(JA__). On May 3, 2011, EPA then proposed the Utility MATS rule which included a work practice standard for non-dioxin organic HAP from electric generating units rather than adopting limits for individual organic HAP or using CO as a surrogate. 76 FR 24,976, 25,027 (May 3, 2011)(JA__). EPA determined that "the significant majority of the measured organic HAP emissions from electric generating units are below the detection levels of the EPA test methods" which made it "impracticable to reliably measure emissions from these units." *Id.* The proposed work practice standard consisted of an annual compliance test program, which EPA later modified by requiring periodic boiler tune-ups and optimization of CO emissions to promote good combustion. *Id.*; 77 FR 9,304, 9,371 (Feb. 16, 2012)(JA__).

Two industry petitioners in this case timely filed petitions for reconsideration of EPA's decision to establish numeric CO limits in the 2011 Rule. They asserted that EPA's rationale for selecting a work practice standard for electric generating units applied to coal-fired industrial boilers as well. The low levels of organic HAP emissions from industrial boilers were similar to the organic HAP levels from utility boilers. Therefore, EPA should have adopted work practice standards for industrial boilers due to similar concerns with reliable measurement of organic HAP emissions. EPA denied these petitions.

When EPA issued its 2011 Proposed Amendments, it again included CO limits rather than a work practice standard for non-dioxin organic HAP. 76 FR at 80,600-01(JA__). Many parties submitted comments favoring the adoption of work practice standards as EPA had done in the Utility MATS rule.

When EPA issued the 2013 Amendments, EPA denied the two petitions for reconsideration of the 2011 Rule because "EPA proposed numeric CO limits rather than a work practice, and the petitioners had the opportunity to provide their views during the public comment period on the proposed rule regarding why it believed a work practice standard should instead be finalized." 78 FR at 7,149-50(JA__). EPA failed to acknowledge that the

primary basis for the objection to the rule (adoption of a work practice standard in the Utility MATS rule) arose after the adoption of the 2011 Rule. EPA similarly failed to respond directly to the fourteen commenters who supported work practice standards for non-dioxin organic HAP. Response to Comments ("RTC") 2012 at 411-424, EPA-HQ-OAR-2002-0058-3846(JA__).

E. Health-Based Emissions Limitations

EPA's 2004 Rule included health-based emissions limitations ("health-based limits") for hydrogen chloride ("HCl"), which ensured that sources need not install controls that were unnecessary to protect public health. EPA aggressively defended its health-based limits justification in litigation over the amended 2004 Boiler MACT standards and associated reconsideration rule. This Court vacated the 2004 Rule without ruling on health-based limits. *See NRDC v. EPA*, 489 F.3d at 1261.

When it proposed the 2011 Rule on remand, EPA did not include health-based limits or expound on its decision not to include them, stating only that it "may no longer be…appropriate." 75 FR at 32,030(JA__). Despite comments on the arbitrariness of this omission, EPA did not include health-based limits in the final 2011 Rule or the 2013 Amendments. EPA never explained its dramatic change of course, failed to respond to comments on this

issue and has not provided a reasoned basis for omitting this important alternative.

SUMMARY OF ARGUMENT

EPA's 2011 Rule (as amended by the 2013 Amendments) must be vacated in part and remanded in part to address five independent flaws that render the rule beyond EPA's authority and otherwise arbitrary and capricious.

First, EPA exceeded its authority by imposing an energy assessment requirement on portions of the facility that are not part of the defined source category. The source category subject to regulation consists only of "boilers" and "process heaters" and EPA has no authority to impose requirements on other portions of the facility. Even if EPA did have such authority, EPA attempted to impose the energy assessment as a "beyond-the-floor" or "work practice standard" without satisfying the requisite statutory criteria. The energy assessment requirement must therefore be vacated in its entirety.

Second, EPA established emission limitations for new oil-fired units and existing coal-fired units that have not been achieved in practice. Contrary to the statutory mandate that EPA set MACT "floors" at levels actually achieved in practice by the best performing sources, EPA established limits for new oil-fired units that no source has achieved for all pollutants. Similarly, EPA established limits for existing stoker coal-fired units that the top twelve percent of the source category have not achieved in practice for all pollutants. The

improper numeric standards for these subcategories must be vacated and remanded to EPA to develop MACT floors that are simultaneously achieved in practice for all pollutants.

Third, EPA failed to account for malfunctions when setting numeric emission standards in the Boiler MACT rule. That failure resulted in standards that, contrary to the statute, are not "achievable," and it disregarded 40 years of judicial precedent interpreting EPA's CAA standard-setting obligations. EPA's defense that accounting for malfunctions is too difficult is unavailing. EPA has a statutory duty to factor malfunctions into its standards and the ability to do so by promulgating a numeric limit, a work practice standard, or a combination of those standards.

Fourth, EPA acted arbitrarily and capriciously when it established a numeric emission limitation for organic pollutants (using CO as a surrogate) instead of a work practice standard for coal subcategories. Much of the data for these coal subcategories available to EPA indicated organic pollutant levels that did not support the numeric standard. When confronted with similar data during the Utility MATS rulemaking, EPA concluded that a work practice was necessary because a numeric emission limitation was unsupportable. EPA provided no explanation for treating industrial boilers with similar data differently, and refused to respond to comments raising this issue. This is the

epitome of arbitrary and capricious rulemaking, and remand is necessary to replace the numeric CO standards for coal-fired subcategories with work practices.

Fifth, EPA acted arbitrarily and capriciously when it performed an about-face on health-based limits for HCl between the 2004 Rule and the 2011 Rule without providing any explanation or data to support its change in position. After EPA vigorously supported health-based limits in 2004 and thoroughly defended this position in this Court, EPA changed course in 2011 without refuting any of the 2004 data or providing any rational explanation for its abrupt change. EPA's actions were arbitrary and capricious and unsupported by the record, and therefore remand to address health-based limits is appropriate.

STANDING

Industry Petitioners are subject to, or represent members who are subject to, regulation under the 2011 Rule (as amended by the 2013 Amendments) and will suffer concrete, particularized injury as a result. *See, e.g.,* AF&PA et al. Comments, EPA-HQ-OAR-2002-0058-3521(JA__); AMP Comments, EPA-HQ-OAR-2002-0058-3685(JA__). The relief requested by Industry Petitioners will redress these harms. Thus, Industry Petitioners have Article III standing. *See, e.g., Ctr. for Energy & Econ. Dev. v. EPA*, 398 F.3d 653, 656-58 (D.C. Cir. 2005).

STANDARD OF REVIEW

EPA must comply with the plain language of the Clean Air Act. *Chevron v. NRDC*, 467 U.S. 837, 842-43 (1984)("If the intent of Congress is clear, 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."). But even where language is ambiguous, EPA's interpretation of the statute still must be reasonable. *Id*. Thus, under CAA §307(d)(9), this Court must overturn agency action that is arbitrary, capricious, an abuse of discretion, or otherwise unlawful.

ARGUMENT

I. THE ENERGY ASSESSMENT REQUIREMENT SUFFERS FROM THREE INDEPENDENT FATAL FLAWS.

A. EPA Cannot Impose Requirements That Extend Beyond the Source Category.

CAA §112(c)(1) expressly requires EPA to establish a "list of all categories and subcategories of major sources and area sources" of hazardous air pollutants. That list sets the bounds of EPA's standard-setting authority: "For the categories and the subcategories the Administrator lists, the Administrator shall establish emission standards under subsection (d)." CAA §112(c)(2).[9] The Act does not allow EPA any interpretive room to redefine source categories when setting emission standards. Rather, EPA can only distinguish "among classes, types, and sizes of sources ***within*** a category or subcategory." §112(d)(1)(emphasis added); *Sierra Club v. EPA*, 479 F.3d 875, 885 (D.C. Cir. 2007)(Williams, J., concurring)("the language of subsections 112(d)(2) and (3) pervasively refers to standards for sources in each '*category or subcategory*'")(emphasis in original).

EPA first listed industrial boilers and process heaters as a source category in 1992. 57 FR 31,576 (July 16, 1992). It did so deliberately,

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[9] *See also* CAA §112(d)(1)(restating that "[t]he administrator shall promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants").

recognizing that its decision was statutorily significant. *Id.* at 31,579 ("exclusive use of the term 'category' will clarify the applicable requirements of section 112"). In 2004, EPA defined this category as "the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source." 69 FR at 55,253(JA__). Consistently, EPA's 2011 Rule expressly stated that "boilers and process heaters located at major sources of HAP are regulated by this final rule." 76 FR at 15,611(JA__).

The 2011 Rule (as amended) expressly defines both "boiler" and "process heater" to mean only the device itself. A "boiler" is "an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water." 40 C.F.R. §63.7575. A "process heater" is "an enclosed device using controlled flame, and the unit's primary purpose is to transfer heat indirectly to a process material…or to a heat transfer material…for use in a process unit, instead of generating steam." *Id.* Having thus defined the affected source category, EPA is unambiguously constrained by §112 to regulate only the equipment that comprises that source category.

The Assessment requirement is unlawful because it extends far beyond boilers and process heaters to regulate all equipment significantly affecting

energy use at facilities that have one or more sources subject to the Boiler MACT rule. For example, it covers a broad array of "major energy use systems," including "process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning systems; hot water systems; building envelope; and lighting; or other systems that use steam, hot water, process heat, or electricity provided by the affected boiler or process heater." 40 C.F.R. §63.7575, Tbl. 3. And further, it covers not only equipment, but also the "specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints"; "available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage." *Id.* From a practical perspective, this approach simplistically recasts complex business and operational decisions as potential energy-saving opportunities, without considering sophisticated manufacturing processes, employee safety, competitive advantage, or upstream or downstream activities that may drive those decisions. ACC 2012 Comments at 42, EPA-HQ-OAR-2002-0058-3510(JA__).

Based on this exhaustive review of the *facility* as a whole, the Assessment directs sources to identify "cost-effective energy conservation measures." 40 C.F.R. Part 63, Subpart DDDDD, Tbl. 3. That wide-ranging obligation goes

far beyond EPA's §112 authority. Once EPA defines a source category, as it has here, it must live with that decision. Its standards for the category must be limited to equipment and operations that belong to that category. The Assessment requirement is unlawful because it imposes obligations that go well beyond the unambiguous limitation of §112 authority over HAPs emitted from the boiler and process heater source category EPA established. The Supreme Court recently cautioned against EPA seeking to expand its statutory authority in furtherance of policy goals in this manner under the CAA in *UARG v. EPA,* observing that EPA may not "rewrite clear statutory terms to suit its own sense of how the statute should operate." 134 S. Ct. 2427, 2466 (2014).

B. The Energy Assessment Is Not a Lawful "Beyond-the-Floor" Standard.

The Assessment requirement also violates the CAA because EPA failed to consider the key statutory prerequisites to establishing a "beyond-the-floor" requirement. Standards issued under §112(d)(2) must be achievable considering the costs, non-air quality health and environmental impacts and energy requirements of the measure. EPA failed to analyze any of these factors. Therefore, the Assessment is unlawful.

1. A "Beyond-the-Floor" Energy Assessment Requirement Is Unlawful Because There Is No Underlying "MACT Floor" Determination.

This Court has stated that setting a MACT standard is a two-step process:

> The Agency begins by setting the minimum stringency standards required by section 7412(d)(3) for new and existing sources.… Once the Agency sets statutory floors, it then determines, considering cost and the other factors listed in section 7412(d)(2), whether stricter standards are "achievable." 42 U.S.C. § 7412(d)(2). The Agency calls such stricter requirements "beyond-the-floor" standards.

National Lime Ass'n v. EPA, 233 F.3d 625, 629 (D.C. Cir. 2000)("*National Lime II*").

Here, EPA violated these requirements by failing to set an Assessment MACT floor on which to base a "beyond-the-floor" standard. EPA failed to determine whether additional emission reductions of each HAP for which it set a floor standard under §112(d)(3) or §112(h) are achievable through a beyond-the-floor Assessment requirement, taking into consideration costs and other factors as required by §112(d)(2). Such failure is a fatal error because the floor establishes the baseline for purposes of determining whether a more stringent standard is warranted in light of cost and the other §112(d)(2) factors. Without such a baseline, EPA cannot rationally evaluate the costs of control beyond the floor.

In short, the Assessment requirement is unlawful because it violates the mandatory two-step MACT standard-setting process.

2. EPA Did Not Adequately Consider the Costs of the Theoretical Beyond-the-Floor Emissions Reductions.

Even if EPA had set a floor for the Assessment requirement, EPA must consider costs when setting "beyond-the-floor" standards. *See Association of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667, 673 (D.C. Cir. 2013)(the Act "expressly directs EPA to consider costs when setting beyond-the-floor standards"). Commenters on the 2010 Proposed Rule explained that EPA's "beyond-the-floor" analysis was flawed because EPA was unable to quantify any HAP emissions reductions that would result from the Assessment requirement and, therefore, could not determine cost effectiveness. 76 FR at 15,632(JA__). In response, EPA admitted that emissions reductions "cannot be precisely estimated," but asserted that the Assessment requirement is "directionally sound" and that "[b]y definition, any emission reduction would be cost effective or else it would not be implemented." *Id*. at 15,633(JA__).

"Directionally sound" is not good enough. EPA concedes that the Assessment requirement would affect 1,700 facilities at a total annualized cost of $28 million, with per-facility costs ranging from "$2500 to $55,000…." 75 FR at 32,026(JA__). At the same time, EPA also concedes that it cannot quantify the HAP emissions reductions the Assessment requirement would

achieve. Thus, industry would be forced to expend millions to achieve no quantifiable HAP emissions reductions. Imposing significant costs with no ascertainable benefit is inadequate and patently arbitrary.

EPA's observation that energy efficiency projects will not be implemented unless they are cost effective adds nothing to this equation. As EPA candidly admits, the Assessment requirement does not compel sources to implement efficiency projects – it simply requires an analysis to be conducted. Thus, even if EPA could determine with certainty that some efficiency projects would be implemented (which it cannot), the resulting HAP emissions reductions would not be attributable to the rule.

3. EPA Failed to Consider the Non-Air Quality Health and Environmental Impacts of the Energy Assessment.

EPA is also obligated to consider "any non-air quality health and environmental impacts" when establishing beyond-the-floor standards. CAA §112(d)(2). This Court has remanded MACT rules where "nowhere in the record does [EPA] appear to have taken account of any non-air quality health effects." *National Lime II*, 233 F.3d at 634. EPA must consider the impacts that "result from the required efforts to *control* the air quality impacts of the underlying manufacturing process." *Sierra Club v. EPA*, 353 F.3d 976, 990 (D.C. Cir. 2004)(emphasis in original).

EPA generally stated that "improving energy efficiency reduces negative impacts on the environment and results in reduced emissions and improved public health." 75 FR at 32,026(JA__). This conclusory statement is inadequate for two reasons. First, just saying it is so does not make it so – such a general assertion must be backed up. Yet, there is no further justification to be found in the record.

Second, even accepting EPA's assertion at face value, it completely misses the point. EPA is required to consider "non-air quality" impacts in assessing the need for a beyond-the-floor standard. Yet, EPA's only specific claim is that the Assessment requirement will result in "reduced emissions." Any effect that flows from "reduced emissions" is, by definition, an *air quality* impact, not a *non-air quality* impact. Thus, EPA's assertion is irrelevant.

4. EPA Failed to Consider the Energy Requirements of the Energy Assessment.

Finally, §112(d)(2) requires EPA to consider "energy requirements" when evaluating beyond-the-floor requirements. *National Lime II*, 233 F.3d at 634. These concerns are particularly germane where EPA is proposing to impose an *energy* Assessment obligation. Yet EPA mentioned the phrase "energy requirements" only once in the 2011 Rule preamble, and that was only because EPA was paraphrasing a comment. 76 FR at 15,640(JA__). Such a passing reference plainly does not pass muster as an assessment of the energy

requirements that might be attributable to the Assessment requirement. Thus, EPA utterly failed to consider this statutorily required factor.

C. The Energy Assessment Is Not a Lawful Work Practice Standard.

EPA characterizes the Assessment as a "work practice" standard, rather than a numeric standard, by placing it in Table 3 in the rule. 40 C.F.R. Part 63, Subpart DDDDD, Tbl. 3. But, nowhere in the record does EPA explain why a work practice is justified here. As a result, the Assessment work practice is unlawful.

Section 112 allows EPA to promulgate work practice standards only when "it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants." CAA §112(h)(1). An emission standard is not feasible when: (1) the relevant HAPs cannot practically or legally be vented "through a conveyance designed and constructed to emit or capture such pollutant[s]" or (2) "the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations." *Id.* §112(h)(2).

For the majority of subcategories required to perform an Assessment, EPA *did* find that HAPs could be vented through control devices and found it *was* technologically and economically practicable to measure HAPs from these

units. 78 FR at 7,196-97(JA__); 40 C.F.R. Part 63, Subpart DDDDD, Tbl.2 (as amended). These quantifiable HAPs are the same HAPs targeted by the Assessment. This is the exact opposite of the finding necessary to support a §112(h) standard.

Because EPA has failed to show that the Assessment work practice requirements are justified under the express criteria of CAA §112(h), the Assessment work practices are unlawful and must be vacated.

II. CERTAIN MACT FLOORS ARE UNLAWFUL BECAUSE THEY DO NOT REFLECT WHAT THE TOP PERFORMING SOURCES ACTUALLY ACHIEVED.

The purpose of §112(d)(3) is to identify the minimum level of control that EPA must establish as MACT. Congress carefully crafted §112(d)(3) to ensure that the minimum MACT standards could not be less stringent than what the best controlled sources were already achieving in practice. It did so by using the past tense "achieved." By adopting a pollutant-by-pollutant methodology without considering what the best performing sources actually achieved, EPA ignored the plain statutory text and set the MACT floor at what it believes a hypothetical unit *could achieve* for certain standards.

A. EPA Must Base the New Source MACT Standard for Heavy Oil-Fired Units on the Performance of an Actual Existing Unit.

EPA ignored the plain statutory language of §112(d)(3) by establishing a suite of MACT floor limits for *new* heavy oil-fired units that no single source in

the subcategory has actually achieved. For new sources, Congress directed EPA to base the MACT floor on what has been "*achieved in practice* by *the best* controlled similar *source*." CAA §112(d)(3)(emphasis added). This directive is unambiguous. The definite article "the," combined with the adjective "best," and the singular use of "source" require EPA to base the MACT floor for all pollutants on the single, best-performing source in the subcategory. *See, e.g.*, *United States v. Hayes*, 555 U.S. 415, 421-22 (2009)(Congress's use of "the word 'element' in the singular…suggests that Congress intended to describe only one required element," and that Congress "would have used the plural 'elements,' as it has done in other…provisions" if it did not intend the singular form).

Instead of following Congress's plain instruction to identify the "best controlled similar *source*," EPA identified the best performing source for each individual HAP and created a MACT floor using three different sources.[10] In effect, EPA impermissibly rewrote the statute to say "best controlled similar source *for each pollutant*." EPA may not rewrite the statute to suit its needs. *See UARG v. EPA,* 134 S. Ct. at 2446. The result is a MACT floor that has not

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[10] *See* U.S. EPA, Revised MACT Floor Analysis (Aug. 2012), Appendix B at B-7a, B-7b, B-7c, and B-7g (identifying the top performing source for PM and HCl as the worst performing source for Hg and CO)(JA__). Such differences are not happenstance and reflect the tradeoffs that often exist between competing control technologies. *See* 136 CONG. REC. 17,238 (1990)(JA__).

been "achieved in practice." *Not one single source* in the heavy oil-fired subcategory is achieving the MACT floor for every HAP. *See* U.S. EPA, Revised MACT Floor Analysis (Aug. 2012), Appendix B at B-7a, B-7b, B-7c, and B-7g(JA__). That contradicts this Court's common-sense observation that a source used to set the MACT floor "will not violate the standard." *Sierra Club v. EPA*, 167 F.3d 658, 665 (D.C. Cir. 1999).

By setting the MACT floor at a level that no existing source has achieved, but that EPA believes a hypothetical unit *could achieve*, EPA improperly used the "beyond-the-floor" standard of "achievability" to set the MACT floor. Congress designed a two-step process for setting MACT standards for new sources establishing: (1) the minimum stringency with a MACT floor based upon what "the best controlled similar source" has "achieved in practice" and (2) more stringent standards if they are "achievable" considering costs, non-air quality health and environmental impacts, and energy requirements. CAA §§112(d)(2) and (3); *see also Sierra Club v. EPA*, 479 F.3d 875, 884 (D.C. Cir. 2007)(Williams, J., concurring).

EPA's approach skips over the MACT floor-setting process entirely and sets beyond-the-floor limits without considering the required factors. As EPA did not establish MACT limits that have been achieved in practice by any heavy oil-fired unit, it has not satisfied the requirements of §112(d).

B. EPA Must Base the Existing Source MACT Standard for Stoker Coal-Fired Units on the Average Performance of the Best Performing Twelve Percent of Units in the Subcategory.

Section 112(d)(3)(A) requires EPA to set the MACT floor at "the average emission limitation achieved by the best performing 12 percent of the *existing sources* (for which the Administrator has emissions information)…in the category or subcategory…" (emphasis added). As with new sources, this does not direct EPA to set standards based on the best performing sources *for each pollutant*. EPA impermissibly read this language into the statute when it used a pollutant-by-pollutant approach that reflects the hypothetical performance of a set of sources that simultaneously achieves the greatest emission reductions for each HAP, regardless of whether such sources actually exist. Congress issued EPA express instructions to set standards based on actual existing sources, not hypothetical ones.

The legislative history of §112(d) further confirms Congress's unambiguous directive:

> Mr. DURENBERGER. …Where differing air pollution control technologies result in one technology producing better control of some pollutants and another producing better control of different pollutants but it is technically infeasible according to the MACT definition to use both, EPA should judge MACT to be the technology which best benefits human health and the environment on the whole.

136 CONG. REC. 17,238 (1990)(JA__).

This legislative history invalidates EPA's attempt to identify a "best performing" source based on its control of a single HAP in isolation, without reference to the source's other HAP emissions. Of the eight sources EPA identified as the "best performing" units for CO in the stoker coal-fired subcategory, only two have data demonstrating they can meet the limits set for all four pollutants. There are over 350 sources in the stoker coal-fired subcategory. 75 FR at 32,023(JA__). EPA has not and cannot explain how the MACT floors reflect "the best performing 12 percent of the *existing sources*…in the…subcategory" when EPA has data for only 2 out of over 350 sources (less than 1%) indicating they can consistently meet all four limits.

By setting standards that have not been achieved in practice by the average of the best performing 12 percent of sources, EPA also disregarded the statute's two-step standard setting process. Had EPA heeded Congress's instructions and identified the top twelve percent of sources with the overall best HAP control, EPA could have then evaluated whether more stringent limits were warranted under the proper beyond-the-floor standards. CAA §112(d)(2); *see also Portland Cement Ass'n v. EPA*, 665 F.3d 177, 196 (D.C. Cir. 2011)(Brown, J., concurring)("*Portland Cement II*"). But EPA could not simply disregard that statutorily mandated first step as it did here.

III. EPA UNLAWFULLY FAILED TO ACCOUNT FOR MALFUNCTIONS WHEN SETTING THE RULE'S EMISSION STANDARDS.

Contrary to statute and precedent, EPA's rule requires facilities to meet technology-based limits that were developed using data from normal operations (when systems are technologically stable) during periods of malfunction (when systems are not technologically stable). The result is MACT standards that are not achievable with available control measures, nor reflective of what is achieved in practice by the best-performing sources.

EPA's decision contradicts a fundamental principle, announced and consistently applied by this Court over the past 40 years, that EPA must account for malfunctions when setting technology-based standards. Contrary to EPA's implication,[11] its departure from precedent was neither required nor justified by this Court's decision in the *General Provisions Decision*, 551 F.3d at 1019. While that case held that a CAA §112-compliant standard must apply at all times, it did not overrule longstanding precedent requiring EPA to take malfunctions into account when setting technology-based standards. EPA impermissibly disregarded that precedent by failing to address malfunctions through numeric emissions limits under §112(d), a work practice standard under §112(h), or a combination of the two.

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[11] *See* 76 FR at 15,613(JA__), 75 FR at 32,012-13(JA__).

A. CAA §112(d) Prohibits EPA from Applying a Numeric Standard Based Solely on Normal Operation to Periods of Malfunction When EPA Knows That Sources Cannot Achieve the Standard in Practice during Such Periods.

EPA derived its numeric limits for boilers and process heaters from data reflecting emission levels achieved in practice during normal operation. In fact, EPA deliberately excluded emissions data from malfunction periods when calculating the average emission rate of existing sources.[12] Yet EPA decided to apply those standards to periods of abnormal operation, *i.e.*, malfunctions, even after explicitly recognizing that well-designed and well-maintained equipment "can sometimes fail and that such failures can sometimes cause an exceedance of the relevant emissions standard." 76 FR at 15,613(JA__). EPA claims that "nothing in section 112(d) or in case law requires that EPA anticipate and account for the innumerable types of potential malfunction events in setting emission standards." *Id.* EPA is wrong about §112(d).

Section 112(d) requires EPA to create standards that are achievable based on identified emission reduction measures or the demonstrated emission performance of existing sources, and to limit emissions only "where achievable." Section 112(d)(3) requires the standards at minimum to reflect actual achievements in the field by best performers. For new sources,

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[12] *See*, *e.g.*, EPA-HQ-OAR-2002-0058-3265 at 20(JA__).

§112(d)(3) sets this "floor" for what is "achievable" as "the emissions control that is *achieved in practice* by the best controlled similar source" (emphasis added). For existing sources, it requires that the MACT standard reflect at least the average level of control "achieved" by the top class of best-performing existing sources. In both cases, where, as here, EPA bases MACT standards on the "floor," §112(d) thus requires EPA to ground its decisions on data reflecting performance. *See Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1158 (D.C. Cir. 2013)("*NACWA*")("[I]t is reasonable to expect that the incinerator on which the MACT floors are based should be able to 'achieve' the MACT floor 'in practice,' which it could not do unless 'achieved in practice' meant 'achieved under the worst foreseeable circumstances.'").

In the real world, as EPA concedes, malfunctions are inevitable and consequential enough to raise emissions above normal levels. When it ignores emissions that best-performing sources experience during malfunctions, EPA breaches its duty to set standards on the basis of real-world performance. It fails to take into account how sources actually operate and unlawfully prohibits emissions that cannot be avoided. *See*, *e.g.*, *Sierra Club v. EPA*, 167 F.3d 658, 665 (D.C. Cir. 1999)(best-performing source should not violate standard supposed to be based on what it "achieve[s] in practice").

EPA argues that §112(d) allows it to ignore malfunctions because the standards must reflect the achievements of the best performers and "the *goal* of best performing sources is to operate in such a way as to avoid malfunctions of their units." 76 FR at 15,613 (emphasis added). But, in saying this, EPA ignores two realities: (1) Congress pegged the stringency of the standards not to goals, but instead to what has occurred in practice and (2) EPA expressly acknowledged that even best performers will inevitably experience malfunctions resulting in increased emissions. Rather than supporting its interpretation, EPA's argument actually underscores that Congress wanted real-world practicalities, including the inevitability of malfunctions, to guide the §112(d) standard-setting process. *See, e.g., Sierra Club v. EPA*, 353 F.3d at 980 ("The idea is to set limits that, as an initial matter, require all sources in a category to at least clean up their emissions to the level that their best performing peers *have shown can be achieved*.") (emphasis added).

The only judicial precedent EPA cites as support for its claim that it may ignore the effect of malfunctions on the achievability of MACT standards is *Weyerhaeuser v. Costle*, 590 F.2d 1011, 1058 (D.C. Cir. 1978). But that decision addressed a Clean Water Act requirement that, unlike the MACT "floor," was "technology-forcing" and intended to require development of new control technology. *See id.* at 1025, 1057. In any event, this Court 10 years later

applied the same approach to technology-based standards under the Clean Water Act as it has applied in the CAA cases discussed below. *See NRDC v. EPA*, 859 F.2d 156, 206-210 (D.C. Cir. 1988) (concluding that a "technology-based standard discards its fundamental premise when it ignores the limits inherent in the technology").

B. This Court Has Repeatedly Confirmed That EPA Must Account for Malfunctions When Setting Technology-Based Standards.

This Court has consistently told EPA that it must factor malfunctions into its technology-based standard setting process under the CAA. In the first NSPS case, this Court acknowledged manufacturers' concerns that malfunctions are an "inescapable aspect of industrial life," and agreed that EPA must make allowance for periods of start-up, shutdown and malfunction when setting technology-based emission standards. *Portland Cement Ass'n v. Ruckelshaus,* 486 F.2d 375, 398-99 (D.C. Cir. 1973), *cert. denied,* 417 U.S. 921 (1974)(*Portland Cement I*). In *Essex Chemical*, petitioners objected to "EPA's failure to provide that lesser standards, or no standards at all, should apply when the stationary source is experiencing startup, shutdown, or mechanical malfunctions through no fault of the manufacturer." *Essex Chemical Corp. v. Ruckelshaus*, 486 F.2d 427, 432 (D.C. Cir. 1973), *cert. denied*, 416 U.S. 969 (1974). The Court agreed and remanded the rule to address this issue, stating: "[t]he identical issue was raised in *Portland Cement* and the court there found

the challenge persuasive enough to merit a remand." *Id*. at 433. The Court added that such changes were "necessary to preserve the reasonableness of the standards as a whole." *Id*.

In *National Lime I,* the court reiterated EPA's duty to consider malfunctions when setting technology-based standards: "In *Essex Chemical* as well as *Portland Cement I* we expressed concern that the standards set might not have been achievable in periods of abnormal operation, *e.g.*, during the 'startup, shutdown and (equipment) malfunction' periods that occur in plant operation; and we remanded for further consideration of this issue." 627 F.2d at 430. The *National Lime I* court remanded EPA's rule for several reasons, concluding that "the record does not support the 'achievability' of the promulgated standards for the industry as a whole…." *Id*. at 431 (citing *Essex Chemical*).

Finally, in a CAA §112 case, *Cement Kiln Recycling Coalition v. EPA*, this Court decided to vacate, rather than simply remand, the MACT standards for several reasons, including:

> industry petitioners may be correct that EPA should have exempted HWCs from regulatory limits during periods of startup, shutdown, and malfunction, permitting sources to return to compliance by following the steps of a startup, shutdown, and malfunction plan filed with the Agency. We have similar doubts about EPA's decision to require sources to

> comply with standards even during openings of emergency safety valves caused by events beyond the sources' control.

255 F.3d 855, 872 (D.C. Cir. 2001)("*CKRC*").

In sum, this Court has consistently recognized that failure to account for malfunctions when setting technology-based standards under the CAA can result in requirements that are inconsistent with the Act. That is true both before and after the 1977 and 1990 CAA Amendments. In this rulemaking, EPA unlawfully failed to adhere to that principle.

C. The *General Provisions Decision* Does Not Countenance EPA's Failure to Account for Malfunctions When Setting Technology-based Standards.

EPA implies that its decision to ignore the effect of malfunctions is consistent with the *General Provisions Decision*. *See* 76 FR at 15,613(JA__); 75 FR at 32,012-13(JA__). In fact, the opposite is true.

That case concerned a blanket exemption, in the MACT General Provisions, from compliance with MACT standards during malfunctions (unless the standards for a particular source category provided otherwise). The Court struck down that provision because it did not result in continuous §112-compliant emission standards, since, as EPA acknowledged, the General Provisions exemption was not established under either §112(d) or §112(h). 551 F.3d at 1028. At the same time, the Court stated that the requirement, based on its interpretation of the inclusion of "continuous" in the CAA definition of

"emission standard," that *some* standard consistent with §112 apply at all times does not mean that *the same* standard must apply at all times. 551 F.3d at 1027. The Court specifically noted the potential for EPA to address malfunctions through its §112(h) work practice authority. *Id*. at 1028.

The *General Provisions Decision* therefore did nothing to negate the principle that EPA must consider malfunctions when it sets §112-compliant emission standards for individual source categories. In fact, the *General Provisions Decision* reached the same conclusion that the *National Lime I* court reached (although it did not discuss or even cite *National Lime I*): Congress included "continuous" in the definition of "emission standard" to preclude the use of "intermittent" emission controls.[13] Industry Petitioners do not seek an exemption from the standards during malfunctions, nor non-"continuous"

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[13] 551 F.3d at 1027. As the *National Lime I* court explained, when Congress defined "emission standard" in the 1977 CAA Amendments as a requirement that limits emissions "on a continuous basis," it was responding to information that some sources temporarily reduced emissions only during adverse weather conditions. 627 F.2d at 434 n.54. Since technology-based standards that account for malfunctions are not the sort of deliberate intermittent control technique addressed by the 1977 CAA Amendments, the *National Lime I* court opined that the 1977 CAA Amendments likely did not change its prior holdings that EPA must consider malfunctions when setting technology-based standards. *See id.* at 430.

intermittently-applied MACT standards, but only standards that account for the performance of available technology during malfunction events.[14]

D. EPA's Failure to Address Malfunctions Using One or Both of the Two CAA §112 Standard-Setting Provisions Was Arbitrary and Capricious.

EPA's admission that numeric emission standards which do not consider malfunctions are not continuously achievable[15] means that EPA's rule was not only contrary to statute,[16] but also arbitrary and capricious. *See National Lime I*, 627 F.2d at 430 ("Promulgation of standards based upon inadequate proof of achievability would defy the Administrative Procedure Act's mandate against action that is 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'").

EPA's claim that accounting for malfunctions is too difficult is unavailing. 76 FR at 15,613(JA__). Difficulty is no excuse to avoid

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[14] *See also Kamp v. Hernandez*, 752 F.2d 1444, 1452-53 (9th Cir. 1985) ("Congress's primary purpose behind requiring regulation on a continuous basis was to exclude intermittent control techniques from the definition of emission limitations," and therefore EPA's interpretation that an emission standard operates continuously "so long as some limitation on emissions, although not necessarily the same limitation, is always imposed" was consistent with the 1977 CAA Amendments).

[15] *See* 76 FR at 15,613(JA__).

[16] *National Lime I*, 627 F.2d at 433 ("[B]y failing to explain how the standard proposed is achievable under the range of relevant conditions which may affect the emissions to be regulated, the Agency has not satisfied this initial burden.").

complying with the law. *CKRC*, 255 F.3d at 865 ("Even accepting the proposition that factors affecting source performance...are difficult to quantify....If EPA cannot meet this requirement using the MACT methodology, it must devise a different approach capable of producing floors that satisfy the Clean Air Act.").

This is particularly true where EPA has another statutory option to account for malfunctions, namely, establishing a work practice standard under CAA §112(h). Such standards are permitted where it is "not feasible…to prescribe or enforce an emission standard," including where "the application of measurement methodology to a particular class of sources is not practicable…." CAA §§112(h)(1) and 112(h)(2)(B), respectively. Commenters asserted, and EPA agreed, that it would be impracticable for EPA to set numeric emission standards for malfunctions for this source category. 76 FR at 15,613, 15,641(JA__). This is true for many reasons, particularly because malfunctions are infrequent and unpredictable. 76 FR at 15,613(JA__).

Malfunctions can also be of short duration, which may make stack testing technically infeasible. This very issue led EPA to promulgate a work practice standard, in lieu of numeric limitations, for startup and shutdown periods. 76 FR at 15,642(JA__). Several commenters suggested easily implemented work practices for malfunctions. RTC 2011 Vol.2 at 734, 759-60,

765, 810, EPA-HQ-OAR-2002-0058-3289(JA__). Options presented included requiring malfunction plans to minimize emissions and return to system stability as expeditiously as possible. *Id.* EPA rejected them without elaboration. EPA's lone assertion that it would be too difficult to account for malfunctions, either in numeric standards or in work practices, is insufficient. *See NACWA*, 734 F.3d at 1143 (remanding because "one sentence in the Federal Register is not enough of a basis to uphold EPA's new approach").

Section 112(d)(1)(E) permits EPA to devise emission standards that combine numeric elements with work practice elements, applying each as appropriate. This gives EPA ample latitude to develop §112-compliant standards based on statutory criteria that are continuously applicable.

E. Remand and Partial Vacatur to Properly Address Malfunctions Is Appropriate.

On its face, CAA §112(d)'s "achieved in practice" requirement bars EPA from applying numeric standards based solely on normal operation to malfunction events. Moreover, as this Court has consistently noted over 40-plus years, EPA's technology-based standards must account for compliance during malfunctions. Neither subsequent court decisions nor legislative changes have altered that duty. Here, the 2011 Rule, as amended, established limits on the basis of normal operations that EPA expects to be exceeded during other operating conditions. *See* 76 FR at 15,613(JA__). This is a

violation of the statutory scheme, and EPA's belief that it would be too difficult to fashion a §112-compliant standard for malfunction events is no excuse.

Accordingly, the Court should vacate and remand the numeric emission standards as applied to periods of malfunction.

IV. EPA ARBITRARILY SET NUMERIC CO LIMITS FOR COAL-FIRED BOILER MACT SOURCES INSTEAD OF A WORK PRACTICE STANDARD.

In the 2011 Rule, EPA established numeric emission limits for CO as a surrogate for control of non-dioxin organic HAP emissions for all boiler subcategories. In the 2013 Amendments, EPA adjusted the CO emission limits. In both instances, however, EPA arbitrarily and capriciously ignored evidence in the record and contemporaneous data from the Utility MATS rulemaking that mandated an alternative approach for coal-fired boilers: work practice standards.

A. EPA's Data Support a Work Practice Standard for Organic HAP from Coal-Fired Boilers.

CAA §112(h)(1) authorizes EPA to "promulgate a design, equipment, work practice, or operational standard" in lieu of an emission standard "if it is not feasible…to prescribe or enforce an emissions standard." The statute further defines the phrase "not feasible to prescribe or enforce an emission standard" as including situations where "the application of measurement

methodology to a particular class of sources is not practicable due to technological and economic limitations." *Id.* §112(h)(2).

EPA has often exercised this authority, most notably in the Utility MATS rule and in the rule under review. EPA set a work practice standard for non-dioxin organic HAP in the Utility MATS rule because much of the measured organic HAP data were below the method detection levels.[17] 76 FR at 25,027(JA__). This made the data unreliable and brought into question how units could demonstrate compliance with individual organic HAP limits. *Id.* at 25,040(JA__). In addition, EPA concluded that it could not develop a meaningful correlation between emissions of organic HAP and CO. *Id.* at 25,039(JA__). Therefore, EPA established a work practice standard for control of organic HAP through periodic tune-ups to ensure good combustion. The tune-ups require optimization of CO and NO_x emissions consistent with manufacturers' specifications or best combustion engineering practice, reflecting EPA's view that optimized CO emissions ensure good combustion conditions and, thus, minimization of organic HAP. 77 FR at 9,380(JA__). This method avoids the establishment of a uniform but arbitrary CO limit for

[17] EPA relied on data from stack testing of full-scale electric generating units and a pilot-scale unit that did not produce electric power. Based on its size and design, the pilot-scale unit is equally representative of industrial boilers.

all boilers that is not supported by data to ensure a particular emission rate for organic HAP.

Similarly, EPA invoked §112(h) to set work practice standards for dioxin/furan for all subcategories under the Boiler MACT rule.[18] 78 FR at 7,141-42(JA__). EPA determined that most dioxin/furan emissions test data were below levels that could be detected or accurately measured. The work practice standard consists of a tune-up requirement similar to the Utility MATS rule and the optional use of an oxygen trim system which ensures continuous optimum combustion conditions. *Id.* at 7,145-46.

EPA's Boiler MACT emissions testing database for non-dioxin organic HAP emissions from coal-fired boilers is very similar to its corresponding database for coal-fired boilers in the MATS rulemaking. In fact, a comparison of emissions data for formaldehyde, the only non-dioxin organic HAP common to both datasets, shows lower average and maximum formaldehyde concentrations in the coal-fired Boiler MACT dataset than in the coal-fired MATS dataset.[19] This comparison demonstrates that there is no meaningful

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[18] EPA also set work practice standards for certain small boilers and for most boilers during startup and shutdown. 78 FR at 7,198-99(JA__).

[19] Comparison made using the May 2012 Boiler MACT Draft Emissions and Survey Results Databases (http://www.epa.gov/ttn/atw/boiler/boilerpg.html) and the December 2011 MATS EGU ICR Part III dataset (http://www.epa.gov/ttn/atw/utility/utilitypg.html). The highest measured

distinction between the datasets and it was arbitrary and capricious for EPA to refuse to adopt work practice standards for non-dioxin organic HAP emissions from coal-fired boilers in the Boiler MACT rule.

B. EPA Has Not Included a Substantive Response in the Administrative Record.

Industry petitioners submitted comments and petitions for reconsideration arguing for work practice standards, instead of numeric emissions limits, for organic HAP emissions from coal-fired boilers in the Boiler MACT rule. But EPA has not provided a substantive response to any of these submissions.

During the comment period for the 2010 Proposed Rule, CIBO and MidAmerican Energy Holdings Co. argued in favor of work practice standards for organic HAPs. *See* EPA-HQ-OAR-2002-0058-2702 at 25(JA__); EPA-HQ-OAR-2002-0058-2786 at 5(JA__). EPA did not provide a direct response to either comment. In response to CIBO, EPA referred to its response to another comment about modifying tune-up requirements. *See* RTC 2011 Vol.2 at 474, EPA-HQ-OAR-2002-0058-3289(JA__).

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level (3-run average) of formaldehyde in the Boiler MACT coal-fired boiler dataset was 1 ppm. By comparison, in the MATS coal-fired dataset the maximum level was 6 ppm. The average of the test results in the Boiler MACT dataset was 0.27 ppm compared to 0.43 ppm for the MATS dataset. Forty percent of the test runs in the Boiler MACT dataset were at or below detection limits compared to 49 percent in the MATS dataset.

In response to MidAmerican Energy Holdings Co., EPA offered only a general reference to its discussion of amended CO limits in the 2011 Rule. *Id.* at 38(JA__). In neither case did EPA enunciate a reason why it did not adopt a §112(h) work practice standard in place of a numeric CO limit.

In response to petitions for reconsideration by AMP and JELD-WEN on the 2011 Rule, EPA denied reconsideration on this issue by claiming that petitioners previously had the opportunity to raise the issue. 78 FR at 7,149-50(JA__). EPA did not acknowledge that information constituting the grounds for petitioners' objections (in the Utility MATS proposed rule) arose after the close of the comment period.

While CAA §307(d)(7)(B) generally limits judicial review to issues raised during the public comment period, the statute requires EPA to "convene a proceeding for reconsideration of the rule" if it was impracticable for a party to raise such an objection during the public comment period. The Court has held that EPA's denial of reconsideration is reversible if the petitioner "could not have reasonably anticipated" a subsequent action by EPA would occur. *Portland Cement II*, 665 F.3d at 185. That standard is clearly met here, as industry petitioners could not have raised an objection to the 2010 Proposed Rule based on data and conclusions not released by EPA until months after the comment period ended.

After the issuance of the 2011 Proposed Amendments, at least fourteen stakeholders presented comments in favor of a work practice standard to limit organic HAP emissions.[20] In each case, EPA responded by referring to its concurrent denial of the petitions for reconsideration. *See* RTC 2012 at 411-424, EPA-HQ-OAR-2002-0058-3846(JA__).

Thus, despite numerous comments by Industry Petitioners, EPA has offered no explanation for its refusal to adopt the work practice approach for coal-fired boilers. In particular, nowhere in the record has EPA addressed why a numeric emission limit is infeasible for *utility* boilers emitting organic HAP at such low levels that it cannot be reliably measured or correlated but is feasible for *industrial* boilers emitting organic HAP at similar levels with the same measurement and correlation difficulties. It is arbitrary for EPA to treat similar sources differently under the two rules when it has already established that a work practice standard is the only reasonable means of controlling non-dioxin organic HAP from coal-fired sources.

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[20] *See* Comments of AF&PA, CIBO, CRWI, JELD-WEN, UARG, Eastman, API, AMP, Interstate Power and Light Company, Alliant Energy Corp., Class of '85 Regulatory Response Group, Integrys Energy Group, Purdue University, and Michigan State University.

V. EPA'S ABOUT-FACE ON HEALTH-BASED EMISSION LIMITATIONS IS ARBITRARY AND CAPRICIOUS.

EPA's decision to eliminate the health-based emissions limit ("health-based limit") for hydrogen chloride ("HCl") is arbitrary and capricious given EPA's vehement defense of this same approach for this same source category before this same Court. Under CAA §112(d)(4), EPA has the authority to adopt alternate health-based limits for pollutants "for which a health threshold has been established" as it did in 2004. But the Agency cannot reverse course by refusing to promulgate those same standards on bases that contradict the governing statute and lack factual support. Rather, "a reasoned explanation is needed for disregarding facts and circumstances that underlay or were engendered by [a] prior policy." *FCC v. Fox Television Stations, Inc.,* 556 U.S. 502, 516 (2009). No such explanation exists to justify EPA's about-face.

A. EPA Properly Established Health-Based Thresholds in the 2004 Rule.

EPA's 2004 Rule included health-based limits for HCl and manganese. Those alternate limits provided essential flexibility designed to save over $2 billion in compliance costs that would have otherwise been required to install controls that were unnecessary to protect public health. SBA Office of Advocacy Comments at 5 fn.20, EPA-HQ-OAR-2002-0058-2791(JA__). EPA developed those limits based on scientific evidence demonstrating these

pollutants cause no health effects below conservative levels and the nature of the sources involved. In EPA's own words, the very same rule now before this Court was "***particularly well-suited*** for a health-based compliance alternative…." 69 FR at 55,240-41(JA__). During reconsideration, EPA provided further support for the health-based limits, concluding that it had applied proper risk assessment methodologies, relied "on scientifically-accepted peer-reviewed methodologies" and that "the compliance alternatives remain protective of the public health." RTC 2005 at 7-9, EPA-HQ-OAR-2002-0058-0729(JA__).

Sierra Club challenged EPA's decision to exercise its authority under CAA §112(d)(4). Before this same Court, EPA aggressively defended through seventeen pages of briefing that: (1) HCl was a "threshold pollutant" and thus a proper candidate for a health-based limit; (2) the health-based limit established provided an "ample margin of safety" under CAA §112(d)(4); (3) the "Health-based standards would not reduce the HAP-related health benefits from the rule…"; (4) it was inappropriate to consider cumulative risks in setting the health-based limit; and (5) "the potential collateral benefits of controls were not a proper reason to impose control costs under the HAPs program on facilities with HAP emissions that did not pose a public health risk." *See* Final Brief of Respondent, *NRDC v. EPA*, No. 04-1385, *53-70 (filed

Dec. 4, 2006)(available at 2006 WL 13694211). This Court vacated the 2004 Rule on other grounds without reaching this issue.

B. EPA Reversed Course for Two Impermissible Reasons.

Although nothing of substance changed, EPA made a complete about-face on the health-based limit it had fought for years to defend. When re-proposing the Boiler MACT rule, the Agency suggested that a health-based standard for HCl "may no longer be…appropriate." 75 FR at 32,030(JA__). Despite extensive comments explaining why it would be arbitrary to eliminate the health-based limit, EPA abandoned them in the 2011 Rule. EPA offered two primary reasons for that striking reversal: (1) a "significant data gap" regarding the "potential cumulative public health and environmental effects" of emissions from boilers "and other sources located near boilers…" and (2) the "co-benefits of setting a conventional MACT standard for HCl." 76 FR at 15,643-44(JA__). Neither is supportable.

1. EPA's Cumulative Effects Argument Contradicts the Statute and Is Factually Baseless.

EPA's attempt to change course based on a "data gap" regarding cumulative effects approach is both legally impermissible and factually unsupported. EPA's new approach flatly contradicts its earlier position that "emissions from sources outside of this source category need not be considered to determine eligibility for the health based compliance alternatives" for

industrial boilers. RTC 2005 at 28, EPA-HQ-OAR-2002-0058-0729(JA__). EPA itself explained that section is focused on emissions from ***the individual regulated source category***:

> Section 112(d)(1) indicates that the administrator is to "promulgate regulations establishing emissions standards for each category or subcategory of major sources and area source of hazardous air pollutants listed for regulation…." The health-based compliance alternatives are included among the emissions standards we have established for ICI boilers and process heaters under section 112(d). Section 112(d)(4) states that "the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection." The subsection described in this provision of the statute is subsection 112(d). Since the "ample margin of safety" provision is also contained within section 112(d), ***we do not interpret this part of the Act to require that we consider emissions from other source categories in establishing a health-based alternative under section 112(d)(4) for one category of sources.***

Id. at 28-29 (emphasis added)(JA__). EPA concluded that the legislative history indicates "Congress intended for EPA to focus only on the emissions from sources within a particular category when establishing health-based standards for a particular source category under section 112(d)(4)." *Id.* at 29(JA__).

EPA has never refuted this compelling analysis. Having already explained why the statutory language, Congressional intent, and statutory structure are inconsistent with its current attempt to look beyond the source category, EPA's contrary "cumulative effects" approach cannot stand.

Nor does EPA's new "cumulative effects" theory have the requisite factual support. EPA offers no new data showing the presence of "cumulative effects" or establishing health risks. Rather, it tries to support its abandonment of health-based limits by noting a "data gap" regarding other emissions near regulated boilers. This boils down to a concession that EPA changed its mind ***without any new information to support its reversal***. That is the essence of arbitrary and capricious rulemaking.

2. The Plain Statutory Language Refutes EPA's Co-Benefits Approach.

EPA also attempts to justify its abandonment of health-based limits by citing the "co-benefits" of collateral non-HAP emission reduction. Specifically, the Agency explains that "it considered the fact that setting conventional MACT standards for HCl…would result in significant reductions in emissions of other [air] pollutants…." 75 FR at 32,032(JA__). EPA suggests Congress acknowledged the possibility that MACT standards would result in collateral non-HAP emissions reductions and, therefore, that "the Agency may consider such benefits as a factor in determining whether to exercise its discretion under section 112(d)(4)." *Id.*

EPA is mistaken. EPA cannot consider air quality impacts associated with non-HAP emissions reductions. CAA §112(d)(2) provides an express list of factors that EPA may consider, which includes "the cost of achieving such

emission reduction, and any ***non-air quality*** health and environmental impacts and energy requirements…" (emphasis added). That unambiguously precludes EPA's attempt to consider collateral reductions of other non-HAP air pollutants when establishing MACT standards. EPA cannot circumvent that instruction by using MACT limits to drive other air emissions reductions which are already subject to the CAA's other extensive provisions governing air quality. *See* CAA §§107-110. EPA's action is arbitrary and capricious and unsupported by the record, and must be remanded for proper consideration of health-based limits.

CONCLUSION

For the foregoing reasons, Industry Petitioners respectfully request that the 2011 Rule (as amended by the 2013 Amendments) be *vacated* with respect to the energy assessment requirement, *vacated* as applied to malfunctions, and partially *remanded* to EPA to correct the deficiencies identified herein. All other aspects of the Boiler MACT rule should be retained and affirmed.

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Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

I certify that the foregoing Opening Brief of Industry Petitioners complies with the type-volume limitations of Rule 32(a)(7)(C) of the Federal Rules of Appellate Procedure and this Court's order of January 31, 2014, limiting this brief to 11,200 words. Doc. #1477836. I certify that this brief contains 11,037 words, as counted by the Microsoft Word software used to produce this brief, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Circuit Rule 32(a)(1).

CERTIFICATE OF SERVICE

I certify that the foregoing Opening Brief of Industry Petitioners was electronically filed with the Clerk of Court on August 12, 2014, using the CM/ECF system and thereby served upon all ECF-registered counsel. I further certify that I have mailed the foregoing document by overnight mail to the following non-CM/ECF participant:

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