ORAL ARGUMENT NOT YET SCHEDULED

No. 09-1322 (Lead) and Consolidated Cases (COMPLEX)

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

COALITION FOR RESPONSIBLE REGULATION, ET AL.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY AND LISA P. JACKSON, ADMINISTRATOR,

Respondents.

ON PETITIONS FOR REVIEW OF 74 FED. REG. 66,496 (DEC. 15, 2009) & 75 FED. REG. 49,556 (AUG. 13, 2010) (CONSOLIDATED)

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to Circuit Rule 28(a)(1), the Non-State Petitioners and Petitioner-Intervenors state as follows:

The Court's Order of March 22, 2011 (Doc. No. 1299368) rejected petitioners' briefing proposal and required these 80 parties, representing a variety of interests, to file joint briefing subject to a combined word limit, and does not otherwise provide for separate argument where those interests may diverge. Any given argument presented or incorporated in this brief should not be construed as necessarily representing the views of each of these parties.

(A) Parties and Amici

PETITIONERS:

Petitions for Review Challenging the Endangerment Rule, 74 Fed. Reg. 66,496 (Dec. 15, 2009):

Case No. 09-1322: Coalition for Responsible Regulation, Inc.; Industrial Minerals Association – North America; National Cattlemen's Beef Association; Great Northern Project Development, L.P.; Rosebud Mining Co.; Massey Energy Co.; Alpha Natural Resources, Inc.

Case No. 10-1024: National Mining Association

Case No. 10-1025: Peabody Energy Company

Case No. 10-1026: American Farm Bureau Federation

Case No. 10-1030: Chamber of Commerce of the United States of America

Case No. 10-1035: Southeastern Legal Foundation, Inc.; U.S. Representative John Linder (GA-7th); U.S. Representative Dana Rohrabacher (CA-

46th); U.S. Representative John Shimkus (IL-19th); U.S. Representative Phil Gingrey (GA-11th); U.S. Representative Lynn Westmoreland (GA-3rd); U.S. Representative Tom Price (GA-6th); U.S. Representative Paul Broun (GA-10th); U.S. Representative Steve King (IA-5th); U.S. Representative Nathan Deal (GA-5th); U.S. Representative Jack Kingston (GA-1st); U.S. Representative Michele Bachmann (MN-6th); U.S. Representative Kevin Brady (TX-8th); The Langdale Co.; Langdale Forest Products Co.; Langdale Farms, LLC; Langdale Fuel Co.; Langdale Chevrolet-Pontiac, Inc.; Langdale Ford Co.; Langboard, Inc.–MDF; Langboard, Inc.–OSB; Georgia Motor Trucking Association, Inc.; Collins Industries, Inc.; Collins Trucking Company, Inc.; Kennesaw Transportation, Inc.; J&M Tank Lines, Inc.; Southeast Trailer Mart, Inc.; Georgia Agribusiness Council, Inc.

Case No. 10-1036: The Commonwealth of Virginia, ex rel. Kenneth T. Cuccinelli, II in his official capacity as Attorney General of Virginia

Case No. 10-1037: Gerdau Ameristeel Corp.

Case No. 10-1038: American Iron and Steel Institute

Case No. 10-1039: The State of Alabama

Case No. 10-1040: The Ohio Coal Association

Case No. 10-1041: The State of Texas; Rick Perry, Governor of Texas; Greg Abbott, Attorney General of Texas; Texas Commission on Environmental Quality; Texas Agriculture Commission; Barry Smitherman, Chairman of the Texas Public Utility Commission

Case No. 10-1042: Utility Air Regulatory Group

Case No. 10-1044: National Association of Manufacturers; American Petroleum Institute; Brick Industry Association; Corn Refiners Association; National Association of Home Builders; National Oilseed Processors Association; National Petrochemical and Refiners Association; Western States Petroleum Association

Case No. 10-1045: Competitive Enterprise Institute; FreedomWorks; the Science and Environmental Policy Project

Case No. 10-1046: Portland Cement Association

Petitions for Review Challenging EPA's Denial of Reconsideration of the Endangerment Rule, 75 Fed. Reg. 49,556 (Aug. 13, 2010):

Case No. 10-1234: Coalition for Responsible Regulation, Inc.; Industrial Minerals Association – North America; National Cattlemen's Beef Association; Great Northern Project Development, L.P.; Rosebud Mining Co.; Alpha Natural Resources, Inc.

Case No. 10-1235: Chamber of Commerce of the United States of America

Case No. 10-1239: Southeastern Legal Foundation; John Linder (U.S. Representative) (GA-7th); Dana Rohrabacher (U.S. Representative) (CA-46th); John Shimkus (U.S. Representative) (IL-19th); Phil Gingrey (U.S. Representative) (GA-11th); Lynn Westmoreland (U.S. Representative) (GA-3rd); Tom Price (U.S. Representative) (GA-6th); Paul Broun (U.S. Representative) (GA-10th); Steve King (U.S. Representative) (IA-5th); Jack Kingston (U.S. Representative) (GA-1st); Michele Bachmann (U.S. Representative) (MN-6th); Kevin Brady (U.S. Representative) (TX-8th); John Shadegg (U.S. Representative) (AZ-3rd); Marsha Blackburn (U.S. Representative) (TN-7th); Dan Burton (U.S. Representative) (IN-5th); The Langdale Company; Langdale Forest Products Company; Langdale Farms, LLC; Langdale Fuel Company; Langdale Chevrolet-Pontiac, Inc.; Langdale Ford Company; Langboard, Inc.–MDF; Langboard, Inc.–OSB; Georgia Motor Trucking Association, Inc.; Collins Industries, Inc.; Collins Trucking Company, Inc.; Kennesaw Transportation, Inc.; J&M Tank Lines, Inc.; Southeast Trailer Mart, Inc.; Georgia Agribusiness Council, Inc.

Case No. 10-1245: Peabody Energy Company

Case No. 10-1281: The State of Texas; Rick Perry, Governor of Texas; Greg Abbott, Attorney General of Texas; Texas Commission on Environmental Quality; Texas Agriculture Commission; Barry Smitherman, Chairman of the Texas Public Utility Commission

Case No. 10-1310: Pacific Legal Foundation

Case No. 10-1318: Competitive Enterprise Institute; FreedomWorks; Science and Environmental Policy Project

Case No. 10-1319: The Commonwealth of Virginia, ex rel. Kenneth T. Cuccinelli, II in his official capacity as Attorney General of Virginia

Case No. 10-1320: Utility Air Regulatory Group

Case No. 10-1321: Ohio Coal Association

RESPONDENTS: United States Environmental Protection Agency (Respondent in all consolidated cases) and Lisa P. Jackson, Administrator, United States Environmental Protection Agency (Respondent in Nos. 10-1030, 10-1044, 10-1049, and 10-1235).

PETITIONERS' INTERVENORS: Commonwealth of Kentucky, States of Alaska,[1] Florida, Indiana, Louisiana, Michigan, Nebraska, North Dakota, Oklahoma, South Carolina, South Dakota, and Utah, Governor of Mississippi Haley Barbour, Portland Cement Association, Glass Packaging Institute, Independent Petroleum Association of America, Louisiana Oil and Gas Association, North American Die Casting Association, Steel Manufacturers Association, National Electrical Manufacturers Association, Michigan Manufacturers Association, Indiana Cast Metals Association, Virginia Manufacturers Association, Colorado Association of Commerce & Industry, Tennessee Chamber of Commerce and Industry, West Virginia Manufacturers Association, the Kansas Chamber of Commerce and Industry, Idaho Association of Commerce and Industry, Pennsylvania Manufacturers Association, Ohio Manufacturers Association, Wisconsin Manufacturers and Commerce, Nebraska Chamber of Commerce and Industry, Arkansas State Chamber of Commerce, Associated Industries of Arkansas, and Mississippi Manufacturers Association

RESPONDENTS' INTERVENORS: Commonwealth of Massachusetts, the States of California, Connecticut, Delaware, Iowa, Illinois, Maine, Maryland, Minnesota, New Hampshire, New Mexico, New York, Oregon, Rhode Island, Vermont, and Washington, the City of New York, Pennsylvania Department of Environmental Protection, Natural Resources Defense Council, Environmental Defense Fund, Sierra Club, National Wildlife Federation, Conservation Law Foundation, and Wetlands Watch

PETITIONERS' AMICI CURIAE: Mountain States Legal Foundation; National Federation of Independent Business Small Business Legal Center; Landmark Legal Foundation; and Atlantic Legal Foundation

[1] The State of Alaska is incorrectly listed on the PACER docket as an "Intervenor for Respondent." Alaska moved for leave to intervene on behalf of petitioners on March 15, 2010 (Doc. No. 1235051), and the Court granted that motion on May 5, 2010 (Doc. No. 1243328).

RESPONDENTS' AMICI CURIAE: Union of Concerned Scientists and Great Waters Coalition have been granted leave to participate as amici curiae in support of respondents. On February 11, 2011, ClientEarth filed a motion for leave to participate as amicus curiae. That motion has not been resolved.

(B) Rulings Under Review

These petitions challenge **(1)** EPA's final rule entitled Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009) ("Endangerment Rule"); and **(2)** EPA's denial of reconsideration of the Endangerment Rule: EPA's Denial of the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 75 Fed. Reg. 49,556 (Aug. 13, 2010) ("Reconsideration Denial").

(C) Related Cases

There are numerous cases related to these consolidated cases. The Court has placed these related cases into three separate groupings, as follows:

(1) Forty-two petitions for review consolidated under lead case **No. 10-1073**: seventeen petitions challenging EPA's "Triggering Rule," 75 Fed. Reg. 17,004 (April 2, 2010), and twenty-five petitions challenging EPA's "Tailoring Rule," 75 Fed. Reg. 31,514 (June 3, 2010).

(2) Seventeen petitions for review consolidated under lead case **No. 10-1092**, challenging EPA's and NHTSA's "Auto Rule," 75 Fed. Reg. 25,324 (May 7, 2010).

(3) Twelve petitions for review consolidated under lead case **No. 10-1167**: three petitions challenging each of the following four EPA Rules: (a) Part 51 – Requirements for Preparation, Adoption, and Submittal of Implementation Plans: Prevention of Significant Air Quality Deterioration, 43 Fed. Reg. 26,380 (June 19, 1978); (b) Part 52 – Approval and Promulgation of State Implementation Plans: 1977 Clean Air Act Amendments to Prevent Significant Deterioration, 43 Fed. Reg. 26,388 (June 19, 1978); (c) Requirements for

> Preparation, Adoption, and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans, 45 Fed. Reg. 52,676 (Aug. 7, 1980); and (d) Prevention of Significant Deterioration (PSD) and Nonattainment New Source Review (NSR); Baseline Emissions Determination; Actual-to-Future-Actual Methodology, Plantwide Applicability Limitations, Clean Units, Pollution Control Projects, 67 Fed. Reg. 80,186 (Dec. 31, 2002).

Pursuant to Rule 28(a)(1)(C) of the Rules of this Court, Petitioners and Petitioner-Intervenors state that Case No. 10-1049, Orr v. EPA, challenges EPA's Endangerment Rule, 74 Fed. Reg. 66,496. The Court severed that case from the other cases challenging the Endangerment Rule and dismissed it for lack of prosecution on September 9, 2010. The case was reopened on January 12, 2011, and continues to proceed separately from these consolidated cases. On March 14, 2011, the Court ordered the petitioner in that case to show cause why his petition should not be dismissed. Petitioner's response to that show-cause order is due on July 13, 2011.

(D) Prior Procedural Rulings

On November 16, 2010, this Court ordered that these consolidated cases be designated as complex. See Order, Coalition for Responsible Regulation v. EPA, No. 09-1322, Doc. No. 1277634 (Nov. 16, 2010). In Orders issued December 10, 2010 [Doc. No. 1282558] and March 18, 2011 [Doc. No. 1299003], this Court ordered that these consolidated cases, as well as the three groupings of related cases listed above, be scheduled for oral argument before the same panel. On September 15, 2010, the State of Texas [Doc. No. 1266089] and another group of petitioners [Doc. No. 1266084]

filed motions asking this Court to stay the Endangerment Rule and other related rules. The Court denied those motions on December 10, 2010 [Doc. No. 1282558].

DISCLOSURE STATEMENT

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

Alpha Natural Resources, Inc. is a Delaware corporation engaged in the business of coal mining and gas production. Alpha Natural Resources, Inc. has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in Alpha Natural Resources, Inc.

American Farm Bureau Federation ("AFBF") is a non-profit voluntary general farm organization founded in 1919 to protect, promote, and represent the business, economic, social, and educational interests of American farmers and ranchers. AFBF represents more than 6 million member families through membership organizations in all fifty states and Puerto Rico. AFBF has no member companies, and no publicly-held companies have an ownership interest in AFBF.

American Iron & Steel Institute ("AISI") is a non-profit, national trade association headquartered in the District of Columbia. AISI has no parent corporation, and no publicly held company has a ten percent or greater ownership interest in AISI. AISI serves as the voice of the North American steel industry in the public policy arena and advances the case for steel in the marketplace as the preferred material of choice. AISI is comprised of 24 member companies, including integrated and electric furnace steelmakers, and 138 associate and affiliate members who are suppliers to or customers of the steel industry. AISI's member companies represent approximately 75 percent of both U.S. and North American steel capacity.

American Petroleum Institute ("API") is a national trade association that represents all aspects of America's oil and natural gas industry. API has approximately 400 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 10% or greater ownership interest in API.

The Arkansas State Chamber of Commerce ("the Arkansas State Chamber") was formed in 1928 to advocate for the business community in Arkansas. **The Associated Industries of Arkansas** was founded as a separate, sister organization to the Arkansas State Chamber. The two groups work together to continually enhance the economic climate in Arkansas. Both groups are private, non-

profit corporations that are totally funded by member dues. Each organization has its own officers and its own directors, but both share headquarters and professional staff in Little Rock. Neither the Arkansas State Chamber nor the Associated Industries of Arkansas has a parent company, and no publicly held company has a 10% or greater ownership interest in the Arkansas State Chamber or the Associated Industries of Arkansas.

The Brick Industry Association ("BIA") is a national trade association representing small and large brick manufacturers and associated services. Founded in 1934, the BIA is the recognized national authority on clay brick construction, representing approximately 270 manufacturers, distributors, and suppliers that generate approximately $9 billion annually in revenue and provide employment for more than 200,000 Americans. BIA has no parent company, and no publicly held company has a 10% or greater ownership interest in BIA.

The Chamber of Commerce of the United States of America ("U.S. Chamber") is a non-profit corporation organized under the laws of the District of Columbia. It has no parent company and does not issue stock. It is a trade association within the meaning of Circuit Rule 26.1 (b). The U.S. Chamber is the world's largest business federation, representing 300,000 direct members and indirectly representing the interests of more than 3,000,000 businesses and professional organizations of every size and in every economic sector and geographic region of the country. A central function of the U.S. Chamber is to advocate for the interests of its members in important matters before courts, Congress, and the Executive Branch.

Coalition for Responsible Regulation, Inc. is a non-profit membership corporation organized under the laws of the State of Texas for the purpose of promoting social welfare, particularly to ensure that the Clean Air Act is properly applied with respect to greenhouse gases, and its members include businesses and trade associations of businesses engaged in activities that would likely be subject to regulation under the Clean Air Act for greenhouse gas emissions. Coalition for Responsible Regulation, Inc. has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in Coalition for Responsible Regulation, Inc.

Collins Industries, Inc. is a Georgia corporation in the business of transporting building products. Collins Industries, Inc. has no parent corporation. No publicly-held corporation has 10% or greater ownership interest in Collins Industries, Inc.

Collins Trucking Company, Inc. is a Georgia corporation in the business of transporting pine and hardwood logs in the state of Georgia. Collins Trucking Company, Inc. is a subsidiary of Collins Industries, Inc. No publicly-held corporation has 10% or greater ownership interest in Collins Trucking Company, Inc.

Colorado Association of Commerce & Industry ("CACI") is a private, non-profit trade association that was created in 1965 when the Colorado Chamber of Commerce and the Colorado Manufacturers' Association merged. CACI members employ over 200,000 Coloradans in the private-sector workforce and include 40 Local Chambers of Commerce representing 20,345 Colorado companies with over 807,000 employees. CACI monitors government rules and regulations to protect and enhance the ability of businesses to operate successfully in Colorado. CACI has no parent company, and no publicly held company has a 10% or greater ownership interest in CACI.

Competitive Enterprise Institute is a non-profit 501(c)(3) corporation organized under the laws of the District of Columbia for the purpose of defending free enterprise, limited government, and the rule of law. It has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in it.

The Corn Refiners Association ("CRA") is the national trade association representing the corn refining (wet milling) industry of the United States. CRA and its predecessors have served this important segment of American agribusiness since 1913. Corn refiners manufacture starches, sweeteners, corn oil, bioproducts (including ethanol), and animal feed ingredients. CRA has no parent company, and no publicly held company has a 10% or greater ownership interest in CRA.

FreedomWorks is a non-profit 501(c)(4) corporation organized under the laws of the District of Columbia for the purpose of promoting individual liberty, consumer choice and competition, and has over 870,000 members nationwide. It has no parent companies, and no publicly-held corporation has a 10% or greater ownership interest in it.

Georgia Agribusiness Council, Inc. is a Georgia corporation whose mission is to advance the business of agriculture and promote environmental stewardship to enhance the quality of life for all Georgians. The Georgia Agribusiness Council, Inc. has no parent company. No publicly-held company as a 10% or greater ownership in the Georgia Agribusiness Council, Inc.

Georgia Motor Trucking Association, Inc. is a Georgia corporation that serves as the "voice" of the trucking industry in Georgia, representing more than

400 for-hire carriers, 400 private carriers, and 300 associate members. The mission of the Georgia Motor Trucking Association is to promote: reasonable laws; even-handed, common-sense administration; equitable and competitive fees and taxes; a market, political and social environment favorable to the trucking industry; and good citizenship among the people and companies of Georgia's trucking industry. Georgia Motor Trucking Association, Inc. has no parent corporation. No publicly-held corporation has 10% or greater ownership interest in the Georgia Motor Trucking Association.

Gerdau Ameristeel Corporation ("Gerdau Long Steel North America" or "GLN"), headquartered in Tampa, Florida, manufactures steel at facilities located throughout the United States and Canada. Gerdau S.A., which is approximately 47% owned by Metalurgica Gerdau S.A., has a 10% or greater indirect ownership interest in GLN.

The Glass Packaging Institute ("GPI") represents the interests of the glass container industry. GPI's 45 member and associate member companies bring a diverse array of products to consumers, producing glass containers for food, beer, soft drinks, wine, liquor, cosmetics, toiletries, medicine and more. GPI members either manufacture glass containers or provide essential supplies to those operations, such as machinery, raw materials, recyclable materials, inspection equipment, energy, transportation and other services. GPI has no parent company, and no publicly held company has a 10% or greater ownership interest in GPI.

Great Northern Project Development, L.P. is a Delaware limited partnership engaged in the business of developing, constructing, and operating coal gasification projects. Great Northern Project Development, L.P. has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in Great Northern Project Development, L.P.

The Idaho Association of Commerce & Industry ("IACI") represents nearly 300 Idaho businesses in such diverse fields as agriculture and food service, technology, accounting and banking, utilities, manufacturing and construction, as well as chambers of commerce from Idaho's large and small cities and associations representing a wide variety of interests in this quest to shape policy for a bright economic future. IACI has no parent company, and no publicly held company has a 10% or greater ownership interest in IACI.

Independent Petroleum Association of America ("IPAA") is a national trade association headquartered in Washington, D.C. that represents the thousands of independent oil and natural gas producers and service companies across

the United States. IPAA serves as an informed voice for the exploration and production segment of the industry, and advocates its members' views before the U.S. Congress, the Administration and federal agencies. IPAA has no parent company, and no publicly held company has a 10% or greater ownership interest in IPAA.

Indiana Cast Metals Association ("INCMA") represents Indiana's foundry industry, including 30 foundries and 35 associated businesses. Indiana's foundry industry is historically one of the top five producers of castings in the country and one of the oldest manufacturing sectors in the state given the average foundry in Indiana has been doing business in the same location for 66 years and many for more than 100 years. INCMA has no parent company, and no publicly held company has a 10% or greater ownership interest in INCMA.

Industrial Minerals Association – North America ("IMA-NA") is a trade association representing the interests of producer member companies that extract and process industrial minerals, and associate member companies that provide goods and services to the industrial minerals industry. IMA-NA has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in IMA-NA.

J&M Tank Lines, Inc. is a Georgia corporation in the business of transporting industrial grade products, such as lime, calcium carbonate, cement, and sand, as well as food grade products such as flour, and agricultural grade products such as salt. J&M Tank Lines, Inc. operates a fleet of 265 tractors and 414 tanks, with 9 terminals located in Georgia, Alabama, and Texas. J&M Tank Lines, Inc. has no parent company. No publicly held corporation has a 10% or greater ownership in J&M Tank Lines, Inc.

The Kansas Chamber of Commerce & Industry ("the Kansas Chamber") is the leading statewide pro-business advocacy group in Kansas. The Kansas Chamber represents member organizations (small, medium and large businesses across Kansas). The Kansas Chamber has no parent company, and no publicly held company has a 10% or greater ownership interest in the Kansas Chamber.

Kennesaw Transportation, Inc. is a Georgia corporation in the business of truckload long-haul transportation of goods, serving an area from Georgia south to Florida, north to Illinois, and west to Washington, Oregon, California, Nevada and Arizona. Kennesaw Transportation, Inc. has no parent company. No publicly-held corporation has a 10% or greater ownership interest in Kennesaw Transportation, Inc.

Langboard, Inc.–MDF is a Georgia corporation in the business of producing Medium Density Fiberboard (MDF). MDF is used in various applications including molding, flooring and furniture. Langboard, Inc. —MDF is a wholly owned subsidiary of The Langdale Company. No publicly-held corporation has 10% or greater ownership in Langboard, Inc. — MDF.

Langboard, Inc.–OSB is a Georgia corporation in the business of producing Oriented Strand Board (OSB). OSB is used in the home construction industry as a panel in flooring, roofing and siding.

Langdale Chevrolet-Pontiac, Inc. is a Georgia corporation in the business of selling and servicing Chevrolet and Pontiac automobiles. Langdale Chevrolet - Pontiac, Inc. is a wholly owned subsidiary of The Langdale Company. No publicly-held corporation has 10% or greater ownership in Langdale Chevrolet - Pontiac, Inc.

The Langdale Company is a Georgia corporation and is the parent company for a diverse group of businesses, some of which are described elsewhere in this Certificate. The Langdale Company has no parent companies. No publicly held corporation has 10% or greater ownership in the Langdale Company.

Langdale Farms, LLC is a Georgia Corporation in the business of producing soybeans, peanuts, cotton, pecans, tomatoes, hay, cattle, and fish. Langdale Farms, LLC is a wholly owned subsidiary of The Langdale Company. No publicly-held corporation has 10% or greater ownership in Langdale Farms, LLC.

Langdale Ford Company is a Georgia corporation in the business of selling and servicing Ford automobiles and trucks with one of the largest new car and truck dealerships in the area with sales, service, parts, body repair and commercial/fleet departments. Langdale Ford Company is a wholly owned subsidiary of The Langdale Company. No publicly-held corporation has 10% or greater ownership in Langdale Ford Company.

Langdale Forest Products Company is a Georgia corporation and is a leading producer of lumber, utility poles, marine piling and fence posts. Langdale Forest Products Company is a wholly owned subsidiary of the Langdale Company. No publicly-held corporation has 10% or greater ownership in Langdale Forest Products Company.

Langdale Fuel Company is a Georgia corporation in the business of providing fuel for The Langdale Company's needs. It is comprised of two divisions which provide wholesale Fuel and Lubricants. Langdale Fuel Company is a wholly owned subsidiary of The Langdale Company. No publicly-held corporation has 10% or greater ownership in Langdale Fuel Company.

Louisiana Oil & Gas Association ("LOGA") represents the independent and service sectors of the oil and gas industry in Louisiana; this representation includes exploration, production and oilfield services. LOGA services its membership by creating incentives for Louisiana's oil & gas industry, warding off tax increases, changing existing burdensome regulations, and educating the public and government of the importance of the oil and gas industry in the State of Louisiana. LOGA has 1,050 members. LOGA has no parent company, and no publicly held company has a 10% or greater ownership interest in LOGA.

Massey Energy Company is a Delaware corporation engaged in the business of mining and processing coal in Central Appalachia. Massey Energy Company has no parent companies. Black Rock Advisors LLC and Fidelity Management and Research Company each hold a 10% or greater ownership interest in Massey Energy Company.

The Michigan Manufacturers Association ("Michigan MA") is a private nonprofit organization and is the state of Michigan's leading advocate exclusively devoted to promoting and maintaining a business climate favorable to industry. Michigan MA represents the interests and needs of over 2,500 members, ranging from small manufacturing companies to some of the world's largest corporations. Michigan MA's members operate in the full spectrum of manufacturing industries, which account for 90% of Michigan's industrial workforce and employ over 500,000 Michigan citizens. Michigan MA has no parent company, and no publicly held company has a 10% or greater ownership interest in Michigan MA.

Mississippi Manufacturers Association ("Mississippi MA") has served as the voice of industry in the State of Mississippi since 1951. Mississippi MA diligently works to maintain a strong manufacturing environment in the State and is the voice of approximately 2,200 member companies in Mississippi. Mississippi MA addresses the needs of today's manufacturer through active involvement in federal and state legislative and regulatory issues, as well as educational and training opportunities. Mississippi MA represents their interests in the areas of the environment, industrial and employee relations, taxation, energy, workforce development and transportation. Mississippi MA has no parent company, and no publicly held company has a 10% or greater ownership interest in Mississippi MA.

National Association of Home Builders ("NAHB") is a not-for- profit trade association organized for the purposes of promoting the general commercial, professional, and legislative interests of its approximately 160,000 builder and associate members throughout the United States. NAHB's membership includes entities that construct and supply single family homes, as well as apartment, condominium, multi-family, commercial and industrial builders, land developers and remodelers. NAHB does not have any parent companies that have a 10% or greater ownership interest in NAHB, and no publicly held company has a 10% or greater ownership interest in NAHB.

The 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 10% or greater ownership interest in the NAM.

National Cattlemen's Beef Association ("NCBA") is a trade association representing more than 140,000 cattle breeders, producers, and feeders in the United States. NCBA has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in NCBA.

The National Electrical Manufacturers Association ("NEMA") is the association of choice for electrical and medical imaging equipment manufacturers. Founded in 1926 and headquartered near Washington, D.C., its approximately 430 member companies manufacture products used in the generation, transmission and distribution, control, and end-use of electricity. These products are used in utility, industrial, commercial, institutional, and residential applications. NEMA provides a forum for the development of technical and safety standards that are in the best interests of the industry and users, advocacy of industry policies on legislative and regulatory matters, and collection, analysis, and dissemination of industry data. NEMA has no parent company, and no publicly held company has a 10% or greater ownership interest in NEMA.

The National Mining Association ("NMA") is a non-profit, incorporated national trade association whose members include the producers of most of America's coal, metals, and industrial and agricultural minerals; manufacturers of mining and

mineral processing machinery, equipment, and supplies; and engineering and consulting firms that serve the mining industry. NMA has no parent companies, subsidiaries, or affiliates that have issued shares or debt securities to the public, although NMA's individual members have done so.

The National Oilseed Processors Association ("NOPA") is a national trade association that represents 16 companies engaged in the production of vegetable meals and oils from oilseeds, including soybeans. NOPA's member companies process more than 1.7 billion bushels of oilseeds annually at 66 plants located throughout the country, including 61 plants that process soybeans. NOPA has no parent company, and no publicly held company has a 10% or greater ownership interest in NOPA.

The National Petrochemical and Refiners Association ("NPRA") is a national trade association whose members comprise more than 450 companies, including virtually all United States refiners and petrochemical manufacturers. NPRA's members supply consumers with a wide variety of products and services that are used daily in homes and businesses. These products include gasoline, diesel fuel, home-heating oil, jet fuel, asphalt products, and the chemicals that serve as "building blocks" in making plastics, clothing, medicine, and computers. NPRA has no parent company, and no publicly held company has a 10% or greater ownership interest in NPRA.

Nebraska Chamber of Commerce & Industry ("the Nebraska Chamber") is a state-wide federation of business firms and organizations, both large and small, dedicated to economic progress and the preservation of a sound business climate. Representing more than 2,000 members — individuals, businesses, industries, professionals, including 60 chambers of commerce and 75 other Nebraska associations — the Nebraska Chamber has an underlying grassroots membership of more than 100,000 persons. The Nebraska Chamber has no parent company, and no publicly held company has a 10% or greater ownership interest in the Nebraska Chamber.

North American Die Casting Association ("NADCA") represents the voice of the die casting industry. NADCA is committed to promoting industry awareness, domestic growth in the global marketplace, and member exposure. Headquartered in Wheeling, IL, NADCA is comprised of both individual members and corporate members located throughout United States, Canada and Mexico. NADCA has no parent company, and no publicly held company has a 10% or greater ownership interest in NADCA.

The Ohio Coal Association ("the Association") is an unincorporated trade association dedicated to representing Ohio's coal industry. The Association has not issued shares or debt securities to the public and has no parent companies, subsidiaries, or affiliates that have any outstanding shares or debt securities issued to the public.

The Ohio Manufacturers Association ("OMA") states that it is a private, non-profit trade association dedicated to protecting and growing manufacturing in Ohio. The OMA promotes policies that increase manufacturing's competitiveness in Ohio and contribute to a sound economy. Manufacturing is the largest share of Ohio's gross state product, it is the largest employment sector in the state, and it enjoys some of the highest average earnings for workers in the state. The OMA represents over 1,400 manufacturing members in nearly every manufacturing sector across Ohio. OMA has no parent company, and no publicly held company has a 10% or greater ownership interest in OMA.

Pacific Legal Foundation is a nonprofit organization and it is not a publicly held corporation or entity; nor is it the parent, subsidiary, or affiliate of any publicly held corporations or entities.

Peabody Energy Company ("Peabody") is a publicly-traded company and, and to its knowledge, has no shareholder owning ten percent or more of its common stock with the exception of BlackRock, Inc., which reported that at December 31, 2009, it owned approximately 10.96% of Peabody's outstanding common stock. Peabody's principal business is the mining and sale of coal.

The Pennsylvania Manufacturers Association ("PMA") is a Harrisburg-based statewide trade organization representing the interests of the manufacturing sector in the public policy process since 1909. PMA has no parent company, and no publicly held company has a 10% or greater ownership interest in PMA.

The Portland Cement Association is a non-for-profit trade association that represents more than thirty companies in the United States and Canada engaged in the manufacture of portland cement. The Portland Cement Association conducts market development, engineering, research, education, technical assistance and public affairs programs on behalf of its member companies. Its mission focuses on improving and expanding the quality and uses of cement and concrete, raising the quality of construction, and contributing to a better environment. The Portland Cement Association is a "trade association" within the meaning of Circuit Rule 26.1

(b). It has no parent corporation, and no publicly held company owns a 10 percent or greater interest in the Portland Cement Association.

Rosebud Mining Co. is a Pennsylvania corporation engaged in the business of bituminous coal mining primarily in Ohio and Pennsylvania. Rosebud Mining Company has no parent companies. No publicly-held corporation has a 10% or greater ownership interest in Rosebud Mining Company.

The Science and Environmental Policy Project is a non-profit 501(c)(3) corporation organized under the laws of the State of Virginia for the purpose of promoting sound and credible science as the basis for regulatory decisions. It has no parent companies, and no publicly-held corporation has a 10% or greater ownership interest in it.

Southeast Trailer Mart, Inc. is a Georgia corporation in the business of selling new and used semi-trailers, along with providing related parts and services. Southeast Trailer Mart, Inc. has no parent company. No publicly-held company has a 10% or greater ownership in Southeast Trailer Mart, Inc.

Southeastern Legal Foundation, Inc. ("SLF") is a non-profit Georgia corporation and constitutional public interest law firm and policy center that advocates limited government, individual economic freedom, and the free enterprise system in the courts of law and public opinion. SLF has no parent companies. No publicly-held corporation has 10% or greater ownership interest in SLF.

The Steel Manufacturers Association ("SMA") is the primary trade association for Electric Arc Furnace steel producers, often referred to as "minimills." The SMA is the largest steel trade association in North America, whose members account for over seventy percent of total U.S. steel production. In a normal year, the member companies of the SMA consume an average of 70 million tons of steel scrap to produce new steel products, which are utilized across North America in new residential and commercial construction projects, as well as in various automotive and white goods applications. SMA has no parent company, and no publicly held company has a 10% or greater ownership interest in SMA.

The Tennessee Chamber of Commerce & Industry ("the Tennessee Chamber") is Tennessee's largest statewide, broad-based business and industry trade association. It is a private, not-for-profit trade association that serves as the primary voice of diverse business interests on major employment and economic issues facing public policy decision-makers in Tennessee. It fosters harmonious relationships between the various elements of the Tennessee business community and serves as an

umbrella organization for companies, trade associations and chambers of commerce to work together for the economic health of the state. The Tennessee Chamber has no parent company, and no publicly held company has a 10% or greater ownership interest in the Tennessee Chamber.

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 10% or greater ownership interest in UARG.

The Virginia Manufacturers Association ("VMA") is the Commonwealth of Virginia's leading voice for industry. The manufacturing sector in Virginia consists of over 5,000 businesses accounting for $172 billion in economic output and supporting over one million jobs. The mission of the VMA is to promote constructive policies and activities on behalf of industry by serving as an advocate for legislative, regulatory, taxation, environmental, workplace, business law, insurance, and technology issues and as an aggregator of business services for its Members. VMA has no parent company, and no publicly held company has a 10% or greater ownership interest in VMA.

West Virginia Manufacturers Association ("WVMA") represents the interests of manufacturers across the State of West Virginia to state and federal agencies, legislators, regulators and policy-makers. WVMA has no parent company, and no publicly held company has a 10% or greater ownership interest in WVMA.

The Western States Petroleum Association ("WSPA") is headquartered in California and is a non-profit trade association that represents companies that account for the bulk of petroleum exploration, production, refining, transportation, and marketing in the six western states of Arizona, California, Hawaii, Nevada, Oregon, and Washington. WSPA has no parent company, and no publicly held company has a 10% or greater ownership interest in WSPA.

The Wisconsin Manufacturers and Commerce ("WMC") is a business trade association with nearly 4,000 members, and is dedicated to making Wisconsin the most competitive State in the nation to do business through public policy that supports a healthy business climate. Its members are Wisconsin businesses that operate throughout the state in the manufacturing, energy, commercial, health care, insurance, banking, and service industry sectors of the economy. Roughly one-fourth

of Wisconsin's workforce is employed by a WMC member company. WMC has no parent company, and no publicly held company has a 10% or greater ownership interest in WMC.

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GLOSSARY

Act	Clean Air Act
Agency	U.S. Environmental Protection Agency
ANPRM	Advance Notice of Proposed Rulemaking, *Regulating Greenhouse Gas Emissions Under the Clean Air Act*, 73 Fed. Reg. 44,354 (July 30, 2008) (JA__)
AR4	Intergovernmental Panel on Climate Change's Fourth Assessment Report: Climate Change 2007 (JA__)
Auto Rule	Final Rule, *Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*, 75 Fed. Reg. 25,324 (May 7, 2010) (JA__)
CAA	Clean Air Act
CAFE	Corporate Average Fuel Economy
CCSP	Climate Change Science Program
CEQ	President's Council on Environmental Quality
CH_4	Methane
CO_2	Carbon Dioxide
Dkt.	Refers to the number of documents on EPA's docket for the Endangerment Rule and the Reconsideration Denial, EPA-HQ-OAR-2009-0171. This is the document ID field in EPA's certified index to the administrative record.
Doc. No.	Refers to the serial number assigned by the electronic CM/ECF system to documents and orders filed in this Court
DOT	U.S. Department of Transportation

EISA	Energy Independence and Security Act of 2007, Pub. L. No. 110-140, 121 Stat. 1492 (Dec. 19, 2007)
Endangerment Rule (or Final Rule)	Final Rule, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009) (JA__)
EPA	U.S. Environmental Protection Agency
EPCA	Energy Policy and Conservation Act of 1975, Pub. L. No. 94-163, 89 Stat. 871 (Dec. 22, 1975)
GHG(s)	Greenhouse gas(es)
HFCs	Hydrofluorocarbons
ICTA	International Center for Technology Assessment
IPCC	Intergovernmental Panel on Climate Change
LDV	Light-Duty Vehicles
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NRC	National Research Council
NSPS	New Source Performance Standard(s)
NPRM	Notice of Proposed Rulemaking
OMB	Office of Management and Budget
PFCs	Perfluorocarbons

Proposed Rule	Proposed Rule, Proposed Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 18,886 (Apr. 24, 2009) (JA__)
Proposed Tailoring Rule	Proposed Rule, Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 74 Fed. 55,292 (Oct. 27, 2009)
PSD	Prevention of Significant Deterioration
Reconsideration Denial	EPA's Denial of the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 75 Fed. Reg. 49,556 (Aug. 13, 2010) (JA__)
RIA	Regulatory Impact Analysis (JA__)
RTC	Response to Comments (JA__)
RTP	Response to Petitions (JA__)
Rule	Endangerment Rule, see above
SF_6	Sulfur hexafluoride
SAB	Science Advisory Board
Tailoring Rule	Final Rule, Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 Fed. Reg. 31,514 (June 3, 2010) (JA__)
Title I	Clean Air Act §§ 101-193, 42 U.S.C. §§ 7401-7515
Title II	Clean Air Act §§ 201-250, 42 U.S.C. §§ 7521-7590
Title V	Clean Air Act §§ 501-507, 42 U.S.C. §§ 7661-7661f
tpy	Tons per year
Triggering Rule	Reconsideration of Interpretation of Regulations that Determine Pollutants Covered by Clean Air Act Permitting Programs, 75 Fed. Reg. 17,004

	(Apr. 2, 2010) (JA__)
TSD	Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act (Dec. 7, 2009) (JA__)
UN	United Nations
USGCRP	United States Global Change Research Program
W/m^2	Watts per square meter, a measure of the power of radiation per unit area at a surface

INTRODUCTION

The suite of rules challenged in these coordinated cases involves what is assuredly the most burdensome, costly, precedent-setting, and far-reaching set of regulations ever adopted by the U.S. Environmental Protection Agency. EPA's Endangerment Rule, challenged here, is the cornerstone of EPA's decision to regulate a new category of emissions under the Clean Air Act. As demonstrated below, the Rule is the product of serious legal, evidentiary, and procedural errors. These errors can fairly be said to reflect EPA's rush to judgment and its decision to disregard statutory text, settled rules of construction, and the specific terms of the Supreme Court's decision and remand in *Massachusetts v. EPA*, 549 U.S. 497 (2007). The errors are further reflected in the Agency's remarkable and implausible contention that the Act must be read to compel a chain reaction of multiple rules leading to what it frankly concedes are "absurd" results, contrary to Congress's intent.

Many errors infecting EPA's final rule stem from a fundamental misreading and misapplication of CAA Section 202(a)(1). Section 202(a)(1) requires EPA, in addressing endangerment, to make a determination that informs and directly ties to the need for, and contours of, automobile emissions standards that address the risk identified. But after forty years of following that integrated approach, EPA now interprets the statute to require an abstract agency risk assessment divorced from the essential regulatory policy judgments its risk assessment entails. Premised on its new interpretation of Section 202(a)(1), EPA not only disavows any obligation, but

concludes it lacks any discretion, to consider the regulatory consequences of its Endangerment Rule. This flouts the plain meaning of Section 202(a)(1) and basic tenets of reasoned decisionmaking.

Although EPA ostensibly exercised statutory authority to address perceived dangers to health and welfare caused by new automobile emissions, in fact it made no showing that the Endangerment Rule or any of its other greenhouse gas ("GHG") rules will effectively remove dangers to health or welfare that might otherwise occur. EPA disclaimed any obligation or authority to define its ultimate regulatory objectives, its chosen means of achieving them, or its conception of successful regulation. Although EPA's regulatory actions are premised on assertions about "changes" to "climate" — including the claim that it is 90-99% certain that human-caused climate change threatens public health and welfare, 74 Fed. Reg. at 66,518 & n.22, nowhere does EPA say what constitutes a "safe climate," acceptable global temperature ranges, "safe" levels of GHGs in the atmosphere, or even how its regulatory actions will have discernable effects that ameliorate actual dangers to the public. Without a showing of how its automobile regulations will ameliorate the abstract endangerment it posits, even after being in effect for many years, neither EPA, nor the public, nor this Court, can accurately judge whether EPA has achieved a congressionally defined goal.

Although Section 202(a)(1) unambiguously requires the Administrator to exercise independent judgment connecting her risk assessment to a reasoned regulatory response, she left the gathering and sifting of the evidence supporting the

Endangerment Rule to an international non-governmental organization chartered to study human-caused climate change. But the conclusions the Administrator borrowed from this organization fall far short of the evidence and analysis necessary to justify EPA's asserted high confidence in its conclusions. Those conclusions rest primarily on modeling projections based on speculative assumptions and modeling results contradicted by real-world observations. Given the multiple, admitted uncertainties of the modeling EPA relied on, the Agency's professed high confidence in its endangerment assessment is unsupported and legally unjustified.

For all these reasons and others, the Endangerment Rule should be vacated and remanded to EPA.

JURISDICTIONAL STATEMENT

Petitioners and their supporting Intervenors seek review of two EPA actions: (1) the Endangerment Rule, 74 Fed. Reg. 66,496; and (2) EPA's order denying reconsideration of that rule, 75 Fed. Reg. 49,556. Multiple timely petitions for review were filed challenging each of the two actions, and those petitions were later consolidated. Order in Case No. 09-1322, Doc. No. 1277479 (Nov. 15, 2010). The Court has jurisdiction under CAA Section 307(b)(1).[1]

[1] Citations are given to sections in the CAA, as opposed to the United States Code sections into which the statutory provisions are codified. Appendix B provides a cross-reference table.

STATEMENT OF ISSUES

1. Whether, in promulgating the Endangerment Rule, EPA erred by declining to account for the admittedly absurd consequences produced by its regulation of GHG emissions from stationary sources.

2. Whether EPA erred by **(a)** refusing to define its public health and welfare objectives; **(b)** failing to connect those objectives with its chosen regulatory response, as CAA Section 202(a)(1) requires; and **(c)** determining that it lacks discretion even to consider whether regulation would meaningfully mitigate identified risks.

3. Whether the Endangerment Rule unlawfully amalgamates six gases (including two gases not emitted from automobiles) into a single "air pollutant," thus evading EPA's responsibility for determining, with respect to five of the six gases, that automobile emissions contribute to an endangerment of public health and welfare.

4. Whether the Endangerment Rule violates the Act's statutory requirements to assess "reasonably [] anticipated" health and welfare endangerment, given that EPA refused to consider **(a)** "reasonably anticipated" benefits of energy use; **(b)** "reasonably anticipated" steps that would be taken to mitigate or adapt to any climate change that occurs; and **(c)** "reasonably anticipated" reductions in automobile GHG emissions from the Energy Independence and Security Act of 2007.

5. Whether EPA's combined finding of high probability/high severity of harm is refuted by the record evidence on which it relies.

6. Whether EPA rulemaking procedures involved fatal procedural error, including EPA's failure to consult its own Science Advisory Board.

STATEMENT OF THE CASE AND FACTS

The current EPA Administration arrived in 2009 with pre-formed convictions that human GHG emissions are causing significant and harmful global climate change. In one of her first official acts, EPA Administrator Lisa Jackson issued a memorandum announcing "five priorities." The first of these "priorities" was "[r]educing greenhouse gas emissions." Dkt. 3414.2.

Three months into the new Administration, EPA released a proposed Endangerment Rule fashioned around two essential proposed conclusions. **First**, EPA proposed to find under CAA Section 202(a)(1) that a mix of six atmospheric GHGs — CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6 — constitutes "air pollution" reasonably anticipated to endanger public health and welfare. **Second**, the Administrator proposed to determine that these six gases together constitute a single "air pollutant" emitted by new automobiles that contributes to harmful "air pollution," even though automobiles do not emit two of the six (PFCs, and SF_6) and emit two others (CH_4 and N_2O,) only in relatively minute amounts. Proposed Rule, 74 Fed. Reg. 18,886, 18,887-88 (Apr. 24, 2009).

On May 19, 2009, one month after publishing the proposed rule and before the comment period closed, the Administration announced its "historic" deal with automakers, environmental parties, organized labor, and the State of California to

promptly issue motor vehicle GHG regulations — a deal that could not be implemented unless EPA were to finalize its Endangerment Rule. *President Obama Announces National Fuel Efficiency Policy*, Dkt. 3394.1. EPA provided only a 60-day comment period for the Endangerment Rule, even though it was apparent this rule would, under EPA's view of the CAA, create one of the most far-reaching regulatory programs in history. EPA refused multiple requests to extend this brief period. 74 Fed. Reg. at 66,503.

EPA announced its final rule on December 7, 2009. *Final Rule*, 74 Fed. Reg. 66,496 (Dec. 15, 2009). That was the opening day of a highly publicized Copenhagen international conference on climate change attended by EPA's Administrator. http://unfccc.int/meetings/cop_15/items/5257.php. EPA's final rule was materially unchanged from EPA's proposal. 74 Fed. Reg. at 66,497-99, 66,516-17, 66,540-41.

In EPA's own words, the Endangerment Rule rests on an interpretation of the CAA and incorporates an approach to regulating GHG emissions that results in "absurd" consequences Congress never intended. Specifically, EPA's chosen regulatory approach produces "absurd" regulation of small sources and "absurd" administrative burdens on government permitting authorities. 75 Fed. Reg. at 31,517 ("costs to sources and administrative burdens to permitting authorities . . . so severe that they bring the judicial doctrine[] of 'absurd results'" into play). Nonetheless, EPA declined to consider these absurd outcomes in promulgating the Endangerment Rule. EPA also omitted making individual contribution findings for each of the

individual substances having different "global warming potentials" that it defined as GHGs. Instead, EPA defined the relevant "air pollutant" as a combination of these six substances, including two substances not emitted by automobiles. Id. at 66,536-37; RTC# 10-14.

Finally, EPA concluded that the extent to which the projected climate effects might be addressed or mitigated by its automobile emission standards was irrelevant to assessing endangerment and that EPA had neither the obligation nor the discretion to consider that question in framing its regulations. 74 Fed. Reg. at 66,507-08. On this basis, EPA declined to reevaluate or otherwise confront its previous finding that regulating GHG emissions from new motor vehicles would, at most, reduce mean global temperatures by 0.01 degree Celsius after nearly a century. RTC# 10-12.

EPA reached its conclusions without benefit of input from the Science Advisory Board, which the Agency declined to consult. EPA relied instead almost exclusively on "assessment literature" generated by third parties that had summarized their own views of global climate change science. According to EPA, the Administrator relied "on the major assessments of the USGCRP, the IPCC, and the NRC as the primary scientific and technical basis of her endangerment decision." 74 Fed. Reg. at 66,510.[2] Significantly, the Administrator declined to undertake her "own

[2] USGCRP refers to the United States Global Change Research Program. When EPA promulgated the Endangerment Rule, the USGCRP's principal report was GLOBAL CLIMATE CHANGE IMPACTS IN THE UNITED STATES (2009). The IPCC is a body established by the United Nations to assess climate science and climate change's

assessment" of the "underlying studies and information." Id. at 66,511. EPA instead placed "primary and significant weight on these assessment reports," because EPA "ha[d] no reason to believe" the reports were inaccurate. Id.

The Administrator was comfortable leaning almost exclusively on the IPCC to answer the critical "attribution" question — whether climate change arises from anthropogenic GHG emissions as opposed to natural forces. EPA placed this heavy, almost exclusive, reliance on the IPCC notwithstanding the record evidence that the U.N. chartered the IPCC for the express purpose of studying human-caused climate change, as opposed to the climate or climate change more generally. See, e.g., RTC vol. 1, app. A, ¶ 2. EPA's Technical Support Document ("TSD") devotes approximately 8 of 198 pages to examining whether relevant projected climate changes and effects can be attributed to human GHG emissions. TSD 47-54. Of the 67 citations in this section, 47 are to the IPCC. The section's introduction and all of its graphics are drawn from the IPCC.

Adopting the IPCC's conclusion verbatim, EPA pronounced with 90-99% certainty that anthropogenic GHG emissions are principally responsible for what

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"socio-economic impacts." See http://www.ipcc.ch/organization/organization.shtml. The Endangerment Rule relies principally on the IPCC's FOURTH ASSESSMENT REPORT ("AR4"), consisting of three Working Group ("WG") reports, WGI: THE PHYSICAL SCIENTIFIC BASIS; WGII: IMPACTS, ADAPTATION AND VULNERABILITY"; and WGIII: MITIGATION OF CLIMATE CHANGE. The NRC is the National Research Council. The principal NRC report relied on by EPA is SURFACE TEMPERATURE RECONSTRUCTIONS FOR THE LAST 2,000 YEARS (2006).

EPA termed "unusual[ly]" high current planetary temperatures. TSD ES-2 ("most" recent temperature increases "very likely" due to anthropogenic GHG emissions); TSD 7 ("very likely" means 90-99% certain); 74 Fed. Reg. at 66,523 (current temperatures "unusual"). The IPCC projected that even doubling GHG concentrations in the atmosphere would cause (at most) a direct increase of 1.2 degrees Celsius. AR4, WG1 at 631. EPA found, however, that "positive feedbacks" in the atmosphere would significantly magnify this warming. EPA's conclusion of future harm thus turned on the presumed existence of these positive feedbacks, even though the IPCC concedes it does not know whether these feedbacks will be positive (increasing warming) or negative (diminishing warming). AR4, WG1, at 637. EPA thus recognized that, despite republishing IPCC's claim of 90-99% certainty, there are "varying degrees of uncertainty across many of the[] scientific issues" associated with the strength of any influence of anthropogenic GHG emissions on climate change or associated harms to human health and welfare. 74 Fed. Reg. 66,506.

Notwithstanding these uncertainties, EPA issued an Endangerment Rule based on model predictions of severe climate change impacts, and further concluded that, because of its Endangerment Rule, it was legally obligated to promulgate a separate rule to restrict GHG emissions from new motor vehicles. Auto Rule, 75 Fed. Reg. 25,324, 35,398 (May 7, 2010). According to EPA's interpretation of the model results reported by the IPCC, by the year 2100 this Auto Rule would reduce global mean temperature by approximately 0.006-0.015°C and reduce global mean sea level rise by

approximately 0.06-0.14 centimeters or about the height of the slightly enlarged period that ends this sentence. RIA 7-124 (Apr. 2010).

EPA further concluded that its regulation of motor vehicle GHG emissions automatically triggered, beginning on January 2, 2011, regulation of stationary-source GHG emissions under the CAA's Prevention of Significant Deterioration ("PSD") program and Title V programs. Tailoring Rule, 75 Fed. Reg. 31,514, 31,519-22 (Jun. 3, 2010); Triggering Rule, 75 Fed. Reg. 17,004 (Apr. 2, 2010). EPA also found, however, that its statutory construction will create, in its own words, "absurd results" never intended by Congress. Tailoring Rule, 75 Fed. Reg. at 31,516. To avoid these expected absurd consequences, including $22.5 billion (by EPA estimates) in permit paperwork costs alone, id. at 31,540 (Table V-I), EPA elected to rewrite ("tailor") the statutory thresholds by creating new non-statutory thresholds unique to GHGs. These GHG-specific thresholds are several orders of magnitude higher than those prescribed by Congress. EPA stated that it will consider reducing its new non-statutory thresholds over time, but that they would likely remain above statutory levels for some time. Id. at 31,516.

Affected parties filed timely petitions for review of the Endangerment Rule. Several petitioners also filed petitions for reconsideration with EPA. Reconsideration Denial, 75 Fed. Reg. 49,556, 49,557 (Aug. 13, 2010). Many petitions urged EPA to reconsider its Endangerment Rule in light of the extensive electronic files from the

University of East Anglia's Climate Research Unit that were released to the public after the comment period closed. Dkt. 11696.1 at i. These materials raised wide-ranging questions regarding the impartiality and data quality of the climate science on which the IPCC and thus EPA relied.

Refusing to receive any public comment on the petitions for reconsideration, EPA denied them on July 29, 2010. 75 Fed. Reg. at 49,556. Timely petitions for review of that action were filed and later consolidated with the challenges to the Endangerment Rule.

SUMMARY OF ARGUMENT

The Endangerment Rule should be vacated and remanded because it is infected with three fundamental categories of errors. In the first category are errors resulting from EPA's misinterpretation of the Clean Air Act's structure, the Supreme Court's *Massachusetts* decision, and the specific terms of Section 202(a)(1) of the Act, which imposes an obligation on EPA to make an endangerment determination tied analytically to the adoption of emission standards for new automobiles. (*See* Section I.) In the second category are errors arising from the Administrator's refusal to consider various factors made relevant to its decision as a matter of law. (*See* Section II.) In the third category are errors arising from the Administrator's selective, unreasonable reading of the record, leading her make a "high likelihood/high severity" endangerment finding based on an evidentiary record manifestly at odds with that conclusion. (*See* Section III, below.)

STANDING

Petitioners' standing to bring these challenges is self-evident because petitioners are the object of and will be directly governed by regulation that EPA asserts is compelled by its Endangerment Rule. *Sierra Club v. EPA*, 292 F.3d 895, 899-900 (D.C. Cir. 2002). Petitioners have standing because the Endangerment Rule is the indispensable prerequisite for regulating mobile-source GHG emissions, which EPA has determined requires it to impose controls on stationary-source GHG emissions under the Act's PSD and Title V programs. *SCAQMD v. EPA*, 472 F.3d 882, 895-96 (D.C. Cir. 2006). Given that petitioners own or represent enterprises that depend on the ability to emit substances that EPA defines as GHGs, EPA's regulations will eliminate those enterprises' operating ability or increase their costs.

The declaration of Dominique Bidet (filed concurrently) explains how EPA's stationary source GHG controls will impose new requirements on the stationary source facilities of National Cement, Company, Inc. as well as how the Auto and Endangerment Rules will also increase the company's costs for purchasing or leasing new vehicles for its fleet. Furthermore, as explained in declarations previously submitted to the Court, several petitioners are industrial entities, or represent industrial or agricultural entities, that will be subject to increased regulation, higher vehicle prices, operational costs, and related commercial burdens resulting directly from EPA's final rule. *Coalition for Responsible Regulation*, Motion for Stay, (Doc. No.

1266030), Exhs. 21, 22, 24, & 25; Exhs. to Docketing Statements for Peabody Energy Co. (Doc. No. 1240189) & National Mining Association (Doc. No. 1240188).

ARGUMENT

This Court should vacate and remand the Endangerment Rule because of fatal flaws in EPA's statutory construction, regulatory explanation, record support, and administrative process.

I. THE ENDANGERMENT RULE RELIES ON AN IMPERMISSIBLE CONSTRUCTION OF THE ACT.

For the first time in the over forty-year history of CAA Section 202(a)(1), during which EPA repeatedly issued automobile emission standards for differing model-year spans in single rulemakings, including for newly regulated pollutants, EPA now interprets Section 202(a)(1) to require two separate regulatory actions, neither of which informs the other. The first is EPA's Endangerment Rule, 74 Fed. Reg. 66,496 (Dec. 15, 2009); the second is its rule setting automobile emissions standards, 75 Fed. Reg. 25,324, 25,398 (May 7, 2010). This is a fundamental change in EPA's view of the statute.

Petitioners here do not argue that EPA erred merely because it published its Endangerment Rule and automobile emissions standards in separate Federal Register notices. Instead, the problem with EPA's approach is far more substantive — EPA independently adopted emission standards and a risk assessment that were ignorant of one another. This complete divorce of risk assessment and regulatory response was

prompted by EPA's mistaken interpretation of Section 202(a)(1) not only to allow but to require the Agency to blind itself to how, and whether, the risk assessment required by Section 202(a)(1) supplies a reasonable basis for the adoption of automobile emissions standards. 74 Fed. Reg. at 66,515 (Administrator must base "her decision about endangerment on the science, and not on policy considerations about the repercussions or impact of such a finding"). Although EPA's risk assessment, logically and legally, must drive and inform the regulations the Agency adopts, EPA concluded here it had no obligation to show — and even that it lacked discretion to consider whether — "the resulting emissions control strategy or strategies will have some significant degree of harm reduction or effectiveness in addressing the endangerment." Id. at 66,508 (effectiveness of regulations "not relevant" to Endangerment Rule) (emphasis added).

EPA's unprecedented decision to divorce its risk assessment from its regulatory response violates the statute for at least four reasons. **First**, EPA's interpretations of the Act have led the Agency to adopt concededly "absurd" regulation contrary to Congress's plain intent and the Supreme Court's Massachusetts decision. (See Section I.A.). **Second**, EPA's refusal to make the risk-informed policy judgments the CAA requires has resulted in incomplete and irrational decisionmaking that fails to achieve demonstrable health and welfare benefits, resulting in regulation for regulation's sake. (See Section I.B.) **Third**, EPA impermissibly combined into one six separate pollutants (including two not emitted by automobiles), while avoiding making the

determinations required by the CAA. (*See* Section I.C.). **Fourth**, EPA's Administrator failed to exercise independent judgment but instead borrowed wholesale from the UN's IPCC, whose mission obviously does not include applying Section 202(a)(1) criteria. (*See* Section I.D.)

A. EPA's Statutory Construction Impermissibly Results In Regulation That EPA Concedes Is Absurd.

EPA concedes that its Endangerment Rule is the first step in a series of agency actions that, under EPA's theory of the statute, inexorably result in absurd regulation contrary to Congress's plain intent. Accordingly, EPA's approach confirms that, in promulgating the Endangerment Rule, it failed to exercise its "discretion within defined statutory limits," as required by *Massachusetts*. 549 U.S. at 533.

1. The Rule Violates Statutory Requirements.

This Court applies "traditional tools of statutory construction" in determining whether the Endangerment Rule's interpretation of Section 202(a)(1) complies with statutory requirements. *Chevron* U.S.A., *Inc. v.* NRDC, 467 U.S. 837, 843 n.9 (1984). These tools of construction include considering "the language and structure of the Act, its legislative history, and any applicable canons of statutory construction." *California Bd. of Optometry v.* FTC, 910 F.2d 976, 979 (D.C. Cir. 1990). One relevant construction canon is that statutes should be interpreted "to avoid absurd results." *Mova Pharm. Corp. v. Shalala*, 140 F.3d 1060, 1067-68 (D.C. Cir. 1998). Another is that EPA may not exercise authority "in a manner that is inconsistent with the

administrative structure that Congress enacted into law." ETSI Pipeline Project v. Missouri, 484 U.S. 495, 517 (1998). Courts also consider the "language and design of the statute as a whole" as part of the Chevron step one analysis. City of Tacoma v. FERC, 331 F.3d 106, 114 (D.C. Cir. 2003).

These construction principles are relevant because the CAA prescribes specific numerical thresholds for regulating pollutants under its PSD and Title V programs. See CAA Sections 165, 169(1), 302(j), 501(2) (setting 100 and 250 tpy thresholds for PSD sources, and a 100 tpy threshold for Title V sources). The specific numerical thresholds reflect, in turn, Congress's intent that these programs should apply only to large industrial sources, not small emissions sources. 123 Cong. Rec. 18,021 (June 8, 1977) (Sen. Muskie) ("houses, dairies, farms, highways, hospitals, schools, grocery stores, and other such sources" excluded from PSD program).

There is no way to reconcile the statute's numerical thresholds with EPA's assertion that it can use an abstract "endangerment" determination to unleash a suite of absurd GHG regulations — as EPA has effectively conceded. Applying the stationary-source statutory thresholds to GHG emissions, EPA acknowledges, would absurdly require hundreds of thousands of small stationary sources to undertake burdensome, expensive, individualized emissions evaluations and controls — despite Congress's decision that those sources should not be subject to such requirements under the CAA. Proposed Tailoring Rule, 74 Fed. Reg. 55,292 55,294, 55,321-22 (Oct. 27, 2009). It would hamper state permitting processes, forcing proposed new and

modified sources to wait years for permits. *Tailoring Rule*, 75 Fed. Reg. at 31,516 ("impossible to administer the permit programs for these sources until at least 2016"). Indeed, as EPA has recognized, applying PSD and Title V requirements to GHGs at the statutory levels would "impos[e] undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of programs." *Id.* at 31,514; *see also* ANPRM, 73 Fed. Reg. 44,354, 44,418 (July 30, 2008) (foreseeing such results).

These structural features establish that Congress could not have intended EPA to regulate GHG emissions from stationary sources. Yet when promulgating the Endangerment Rule, EPA did not account for those absurd consequences, even though they result from a series of regulations EPA believes it was required to promulgate in light of its Endangerment Rule. Specifically, EPA believes the Endangerment Rule requires it to issue regulatory standards governing automobiles; which EPA believes in turn requires application of the PSD program to stationary sources of GHGs; which EPA effectively concedes is inconsistent "with the administrative structure that Congress enacted into law." *ETSI*, 484 U.S. at 517. As EPA has admitted, "[a]pplying the PSD thresholds to sources of GHG emissions literally results in a PSD program that is so contrary to what Congress had in mind — and that in fact so undermines what Congress attempted to accomplish with the PSD requirements — that it should be avoided under the 'absurd results' doctrine." 74 Fed. Reg. at 55,310; *see also id.* (same for Title V).

2. The Rule Is Contrary To Massachusetts v. EPA.

Under EPA's construction of the statute, its Endangerment Rule sets in motion a row of falling dominos that ends up yielding results EPA concedes are absurd. EPA nonetheless asserts *Massachusetts* justifies its adoption of the Endangerment Rule, without any consideration of its absurd consequences. EPA also asserts it can work around the acknowledged absurdity by amending numerical thresholds as they appear in the Act. Both assertions are meritless.

In *Massachusetts*, the Supreme Court rejected the "policy considerations" EPA invoked in 2003 for denying a rulemaking petition seeking regulation of new automobiles' GHG emissions as "air pollutants." 549 U.S. at 532-34. In rejecting that former EPA position, the Court emphasized that EPA may not rest its decision whether to regulate on "reasoning divorced from the statutory text." Id. at 532. *Massachusetts* did not hold that an Endangerment Rule is required by the CAA. Nor did *Massachusetts* suggest that EPA must regulate GHG emissions. Instead, the Court held that "EPA must ground its reasons for action or inaction in the statute." Id. at 534-35 (emphasis added); id. at 533 (EPA's "reasons for action or inaction must conform to the authorizing statute"); id. (EPA must "exercise discretion within defined statutory limits").

To be sure, *Massachusetts* did hold that GHGs fall within the definition of "air pollutant" under Section 202. Id. at 528-29. But that is only a necessary, not a sufficient, pre-condition for regulation under Section 202. Were it otherwise,

Massachusetts would have ordered outright reversal of the Agency's 2003 decision and a grant of the underlying rulemaking petition. *Massachusetts* leaves open the option of EPA declining to enact new motor vehicle emission standards for reasons "grounded in the statute." *Id.* at 535 ("We need not and do not reach the question whether on remand EPA must make an endangerment finding").

On remand, instead of exercising authority "within defined statutory limits," *id.* at 533, EPA decided to regulate GHG emissions no matter what. Indeed, even before EPA finalized its rule, Executive Branch officers publicly committed EPA to the regulation of GHG emissions under the Act. Dkt. 3394.1 & 3414.2. With the outcome of its proceedings apparently foreordained, EPA decided its only real task was to justify a ruling that "emissions from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare." CAA Section 202(a)(1).

EPA's results-driven view of its authority is erroneous and violates *Massachusetts*. *See SEC v. Chenery Corp.*, 318 U.S. 80, 95 (1943); *Prill v. NLRB*, 755 F.2d 941, 947-48 (D.C. Cir. 1985) (agency's misconception of its discretion requires a remand for its exercise under a proper understanding of the law). Just as EPA may not avoid a rulemaking petition based on considerations untethered to the statutory text, so it cannot embrace GHG regulation without a candid, accurate evaluation of its full range of statutory options. And such options, of necessity, include taking account of the implications throughout the statute of embarking on a proposed

course of action. It remains to be seen whether EPA might regulate mobile or stationary sources of GHG emissions in a manner consistent with the Act. But having misconceived both Section 202(a)(1) and the meaning of *Massachusetts*, while concluding that its current approach to regulating GHG emissions under the PSD and Title V programs produces absurdities, EPA's Endangerment Rule cannot stand.

EPA contends that for purposes of the Endangerment Rule it may ignore the absurd consequences unleashed by its interpretive choices and invoke the "absurdity doctrine" only for purposes of the "narrow solution" of the "Final Tailoring Rule." 75 Fed. Reg. at 49,587. But it is the Endangerment Rule that in EPA's view is the root cause of the absurdity — according to EPA, the Rule requires it to promulgate automobile emissions standards that in turn trigger stationary source regulation with absurd results. 73 Fed. Reg. at 44,418 ("provisions of the CAA are interconnected in multiple ways such that a decision to regulate one source category of GHGs could [potentially] lead to regulation of other source categories of GHGs [and] trigger … PSD requirements"). EPA may not selectively consider CAA structure and program interrelationships. In particular, EPA may not intend for its Endangerment Rule to set in motion a regulatory cascade flowing all the way from Title II (concerning mobile sources) into Titles I and V (concerning stationary sources), while at the same time insisting that the Agency must take such Title II action wearing blinders as to its ultimate consequences. 75 Fed. Reg. 53,892, 53,895 (Sept. 2, 2011) (EPA's "related action," including the Endangerment Rule, "taken together, trigger PSD applicability

for GHG sources"). As this Court noted in Ethyl v. EPA, EPA's authority to regulate is constrained, not enlarged, by the relationship of the term "endanger" to "other sections of the Clean Air Act." 541 F.2d 1, 29 (D.C. Cir. 1976) (en banc).

Apart from these statutory construction errors, EPA ought to have recognized that an identified absurdity does not allow agencies to rewrite statutory text. Absurd statutory applications can be avoided only by "adopting a restricted rather than a literal or usual meaning" of statutory language. In re Trans Alaska Pipeline Cases, 436 U.S. 631, 643 (1978) (emphasis added); see also Green v. Bock Laundry Mach. Co., 490 U.S. 504, 510 (1989). The "rule that statutes are to be read to avoid absurd results" allows an agency to establish that seemingly clear statutory language does not reflect the "unambiguously expressed intent of Congress," but it does not grant the agency "a license to rewrite the statute." Mova, 140 F.3d at 1068.

Here, EPA has not adopted a restricted or narrowing interpretation of any statutory terms, much less of terms appearing in the Act's Section 202, PSD, or Title V provisions. Instead, EPA simply rewrote the statutory requirements to reach its preferred policy outcome — effectively transmuting a statutory 100 tpy (or 250 tpy) threshold into a 75,000 tpy threshold, while simultaneously claiming unfettered authority to further modify these numerical thresholds over time as its enforcement resources allow. Reconsideration Denial, 75 Fed. Reg. at 49,588; compare Hoctor v. USDA, 82 F.3d 165, 168-71 (7th Cir. 1996) (numerical choices are inherently legislative). This is administrative alchemy to reach a preferred outcome; it is not the sort of restrictive,

narrowing statutory construction that might conceivably be authorized by the absurd results doctrine.

3. The Rule Is Arbitrary And Capricious.

Even if EPA's refusal to consider the admittedly absurd PSD and Title V consequences when issuing its Endangerment Rule did not violate *Chevron* step one, this refusal would independently constitute arbitrary and capricious agency action.

Review of agency action entails an inquiry into whether an agency engaged in reasoned decisionmaking by giving appropriate weight to the relevant statutory factors specified by Congress. *Motor Vehicle Mfrs. Ass'n. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1063 (D.C. Cir. 2001). EPA must therefore demonstrate that it "formulated a judgment which rationally accommodates the facts capable of ascertainment and the policies slated for effectuation." *Telocator Network v. FCC*, 691 F.2d 525, 545 (D.C. Cir. 1982). And it must reasonably explain "what major issues of policy were ventilated … and why the agency reacted to them as it did." *Republican Nat'l Comm. v. FEC*, 76 F.3d 400, 407 (D.C. Cir. 1996).

EPA failed in these obligations because its Endangerment Rule is not "rationally accommodate[d]" to establishing GHG emissions regulation. Instead, EPA barreled ahead as if it had no choice but to issue an Endangerment Rule and then reacted as if regulation of mobile and stationary source emissions were an unwelcome surprise. As other Executive Branch agencies have recognized, EPA

failed to "explain in clear, understandable terms the extraordinary costs, burdens and other adverse consequences, and the potentially limited benefits, of the United States unilaterally using the Clean Air Act to regulate GHG emissions," through a regulatory scheme "forced into the Clean Air Act's legal and regulatory mold." 73 Fed. Reg. at 44,371 (Department of Energy).

EPA ultimately adopted the remarkable stance that "the impact of regulations that may flow from a positive endangerment finding, even if absurd, is not a relevant consideration." 75 Fed. Reg. at 49,586. In so doing, EPA failed to offer any rationale for abandoning its initial and lawful approach of assessing all statutory and regulatory consequences, 73 Fed. Reg. at 44,408, 44,418-20 — or for how its blinkered approach can be squared with *Massachusetts*. EPA's *sub silentio* departure from former policy and refusal to consider matters made relevant by statute represent poster-child arbitrariness. *FCC v. Fox Telev. Stations, Inc.*, 129 S. Ct. 1800, 1811 (2009).

B. EPA Violates The Plain Terms Of CAA Section 202(a)(1).

Section 202(a)(1) requires the Administrator to promulgate vehicle emission standards if, "in [her] judgment," emissions of an air pollutant from new motor vehicles "cause[s], or contribute[s] to," air pollution that "may reasonably be anticipated to endanger public health or welfare." This statute contemplates one regulatory undertaking — the issuance of vehicle emission standards, the need for which is informed by a risk assessment. As this Court held in *Ethyl*, avoidance of "endangerment" is not a purely scientific undertaking but a public policy goal — one

informed by scientific evidence of risk, but accomplished via regulatory policy choices. Ethyl, 541 F.2d at 29 (endangerment is based on "choices of policy" more than on "factual issues") (quoting Amoco Oil v. EPA, 501 F.2d 722, 741 (D.C. Cir. 1974)).

The reasonableness and permissible parameters of any rule adopted under Section 202 are thus a function of the underlying risk assessment that informs the Agency's rule. It is not enough for EPA to conclude that a pollutant "threatens health" or "threatens welfare" and that its new regulations will reduce levels of that pollutant. EPA must explain how its regulations were chosen and why they represent a rational choice in light of the risk. Failure to do so is incomplete reasoning, which EPA falls prey to here, as it did in an earlier rulemaking overturned by this Court: "EPA argues … it need only show that gasoline lead threatens human health and that the new regulation will reduce gasoline lead. By EPA's logic, adverse health effects would permit it to justify any lead standard at all, without explaining why it chose the level it did. We cannot accept such incomplete reasoning." Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 525 (D.C. Cir. 1983).

That is why this Court's en banc decision in Ethyl framed the relevant issue, not as whether there was evidence that environmental lead could be a public health hazard, but as whether the record "present[ed] a rational basis for the low-lead regulations" that EPA actually adopted. 541 F.2d at 38. There, EPA identified a concrete risk to public health (impaired brain function resulting from lead exposures) and a tangible metric (blood lead levels) to be used to evaluate this concrete public

heath risk. Id. at 37-38. EPA selected a specific blood lead level that corresponded with what it deemed an acceptable risk of potential brain-function impairment and explained why the selected level was appropriate to avoid endangerment. Id. at 38-39. Finally, EPA established that regulation of lead levels in gasoline would lower airborne exposures in a way that would fruitfully attack the underlying danger of increased blood lead levels leading to brain impairment. Id. at 31 & n.62, 55-65. By the end of its rulemaking, EPA had adequately explained all regulatory policy choices it had made to convert scientific knowledge about lead toxicology and exposure, vehicular lead emissions, and technological feasibility of lead-emissions controls into a policy-based justification for its specific regulatory program. Scrubbing EPA's record evidence and regulatory reasoning in a 50-page opinion, the Court upheld the lead rule (albeit over dissent).

Lead is a toxin, with no known benefits to the environment, to which the public formerly was exposed, primarily, as a result of burning leaded gasoline in local urban areas. Id. at 8-9. This case in contrast principally involves CO_2, a "pollutant" overwhelmingly natural in origin, critical to life on Earth, and uniformly distributed in the global atmosphere in trace amounts that have varied widely over the course of history. Surely, in regulating CO_2, EPA has an obligation to explain its policy choices that is at least the equal of the explanatory obligation it confronted (and satisfied) in regulating lead.

Nonetheless, EPA expressly declined to articulate specific grounds for its decision to regulate CO_2 and other GHGs. Instead of articulating the precise grounds for its regulatory choices, EPA obscured them, relying on a broad, generalized, "qualitative" "weighing" of whether the numerous "risks and benefits, when viewed in total," support a judgment of endangerment. 74 Fed. Reg. at 66,523-24. The net result was regulatory action based on poorly defined risks, followed by a regulatory response that was never justified in term of the underlying risk assessment. EPA never truly defined what it is that endangers (either in its Endangerment Rule or its motor vehicle rules) or made any effort to show how its regulations will yield any meaningful benefit to health and welfare. This is the same incomplete reasoning rejected in Small Refiner, 705 F.2d at 525.

To be sure, EPA did provide a generalized, "qualitative" "weighing" predicated on future changes to "climate." 74 Fed. Reg. at 66,497. But "climate" always changes. And climate is merely "the combination of temperature, precipitation, winds, etc., characteristic of a locality or region over an extended period of time." FUNK & WAGNALLS STANDARD COLLEGE DICTIONARY 254 (1977). And, moreover, "change" may itself be good, bad, or neutral — depending on the change's direction, extent, and effects on particular individuals, groups, or resources.

Against this backdrop, the overall question whether climate change endangers in a way that requires regulatory responses leads to multiple constituent questions that EPA should have, but failed to, answer: What levels of which climate variables

"endanger"? Based on what criteria, for what populations, in what locations is endangerment established by the record? How does EPA decide that any climate change is a net danger to public health and welfare, as opposed to a limited danger to specific groups or individuals offset by benefits to others? How might GHG regulation under CAA Section 202 reduce emissions in a way that would meaningfully address the alleged "endangerment"?

EPA's Endangerment Rule answers none of these questions because it construes Section 202(a)(1) to render them irrelevant. But, if "adequate judicial review is to be obtained, the agency must provide a written decision that clearly sets out the grounds which form the basis of its action." Bethlehem Steel Corp. v. EPA, 638 F.2d 994, 1004 (7th Cir. 1980) (citations omitted). EPA thus has unlawfully deprived this Court of the record needed to evaluate whether EPA's multiple GHG rules — either singly or in combination — will mitigate defined public health and welfare risks based on rational policy choices. EPA should have explained, was required to explain, but did not explain, the regulatory policy choices and justifications adopted along the full path from converting available information about anthropogenic GHGs into a conclusion that they "endanger" and from there into concrete regulations, adopted to protect public health and welfare.

By refusing to create a record explaining each step in its analysis, and specifically by divorcing its scientific risk assessment from its regulatory policy response, EPA undertakes regulation for its own sake, not for the sake of a

demonstrated and rationally justified health or welfare benefit. *Compare Small Refiner*, 705 F.2d at 525 (path of an agency's reasoning must be clear). This rulemaking thus stands in sharp contrast to *Ethyl*, where EPA explained and justified each step in its chain of reasoning leading from health risk to regulatory response.

The Administrator's charge under the CAA is "to protect the public from danger." *Ethyl*, 541 F.2d at 24. But this charge can be carried out only by means of *effective* regulations. In Section 202(a)(1), Congress adopted the "may reasonably be anticipated" standard for the express purpose of ensuring "regulatory action can *effectively* prevent harm before it occurs." 74 Fed. Reg. at 66,508 (emphasis added) (quoting legislative history). EPA's assertion that it need make no showing that GHG regulation from motor vehicles will "have some significant degree of harm reduction or effectiveness in addressing the endangerment," *id.*, is a self-issued writ of limitless authority to adopt ineffective regulations, such as those now before the Court.

While regulations most assuredly may "whittle away" at health risks rather than eliminate them at one swoop, *Massachusetts*, 549 U.S. at 524, EPA still must whittle and not just wave in the air. Regulations not shown to protect the public health and welfare are beyond the Administrator's charge. It is the endangerment evaluation itself that establishes the terms by which the reasonableness of EPA's regulatory response must be tested. *Ethyl*, 541 F.2d at 38. *Massachusetts* accordingly commanded that, on remand, EPA "must ground its reasons for action or inaction in the statute."

549 U.S. at 535 (emphasis added). That command, necessarily, demands compliance with the requirements of Ethyl.

EPA roots its contrary views not in statutory text but in a supposed statutory "structure." Specifically, EPA claims that "[t]he structure of CAA section 202(a) and the various other similar provisions indicate an intention by Congress to separate the question of what is the problem we need to address from the question of what is the appropriate way to address it." 74 Fed. Reg. at 66,513. EPA's conclusion that it lacks even the discretion to conduct a unified rulemaking represents a jarring violation of Prill. 755 F.2d at 947 (an "agency decision cannot be sustained … where it is based … on an erroneous view of the law"). EPA's reasoning amounts to disavowal of a sphere of authority conferred by the statute (and recognized in Ethyl), to make regulation-supporting endangerment determinations where the regulations resulting from those determinations would meaningfully address the underlying danger.

Moreover, EPA's construction of Section 202(a)(1) is internally contradictory. At one point, EPA relies on "procedural discretion … provided by CAA section 202(a)'s lack of specific direction" as to whether it may issue an endangerment rule before or at the same time as automobile standards. 74 Fed. Reg. at 66,501. Elsewhere, it asserts that it lacks even the discretion to conduct a unified rulemaking. 74 Fed. Reg. at 66,513. EPA thus simultaneously asserts both that the statutory structure commands separation of the Endangerment Rule from Auto Rule and that the statute is silent on separation, leaving a gap for EPA to fill. Both claims cannot be

true; in fact, neither is: the endangerment criterion, as enacted by Congress in its 1977 CAA amendments, contemplates one regulatory action — an intertwined scientific risk assessment and resulting regulatory choice. Because EPA misinterprets statutory requirements, its Endangerment Rule cannot stand.

C. EPA Regulation Of Six Separate Gases As One Pollutant Contravenes The Act.

Citing the CAA Section 302(g) definition of "air pollutant" as "any air pollution agent or combination of such agents," RTC# 10-1, EPA contends that it enjoys authority to group six separate air pollutants — CO_2, CH_4 (methane), N_2O, HFCs, PFCs, and SF_6 — into a single "greenhouse gas" air pollutant. 74 Fed. Reg. at 66,540. EPA does not contend that Section 302(g) gives it unlimited discretion to combine any group of air pollutants into a single pollutant, only that it is reasonable under the statute to do so here. Id. at 66,541, 66,516-18.

This amalgamation of six pollutants into one, however, is neither permissible under Chevron step one nor reasonable under Chevron step two. Cf. NRDC v. EPA, 976 F.2d 36, 40-41 (D.C. Cir. 1992) (EPA interpretation of general language of one CAA provision cannot lead to a regulatory result not permitted by another). Although EPA cites past practice to support grouping the six GHGs together, EPA in the past has grouped different chemical compounds into a single air pollutant only where doing so facilitated regulation in harmony with the statute. For instance, EPA regulates an almost infinite variety of compounds as "$PM_{2.5}$," meaning particles less

than 2.5 microns in diameter. EPA does so because, according to the Agency, it is the particle's size, not its composition, that poses the relevant risks to public heath and welfare. EPA thus groups together all particles of less than 2.5 microns because it then can establish a single numerical NAAQS for all particles of that size regardless of chemical composition.

In contrast, defining GHGs as a single air pollutant does not facilitate regulation according to the statutory strictures and, indeed, affirmatively subverts the statute. Although EPA finds that the six GHGs combined "cause, or contribute to, air pollution," it made no such finding for each of the individual pollutants. Tellingly, automobile and other Section 202 sources do not emit SF_6 or PFCs at all. Moreover, CO_2 is by far the dominant GHG emitted by Section 202(a) sources, 94% of the total, id., and, according to EPA, CH_4, and N_2O emissions from Section 202(a) sources represent less than 0.01% and 0.08% of total global GHG emissions, respectively, measured according to their "carbon dioxide equivalent" ("CO_2e"). 74 Fed. Reg. at 18,908. Yet these non-CO_2 pollutants are now regulated under the PSD and Title V programs even though, according to EPA, one of the links in the chain that caused such regulation — a finding that they are emitted from Section 202(a) sources in sufficient amounts that they "cause, or contribute to, air pollution" — was never made.

This is not merely a theoretical problem. Underground coal mines, for example, emit methane and will now be subject to methane regulation because

automobiles emit relatively large quantities of CO_2. Nothing in the CAA supports such a result. Doc. Nos. 1240189 & 1240188.

Regulating GHGs as a single air pollutant produces a further (and tacit) "tailoring" of the PSD and Title V thresholds. This occurs because, although the six GHGs all trap heat, they do so to radically different degrees. For instance, CH_4, N_2O, and SF_6, have respectively 21, 310, and 23,900 times the heat-trapping properties of CO_2 per unit of mass. TSD 11, Box 2.1. As a result, EPA adopted the CO_2e metric, in which 1 ton of CH_4 is deemed to be the same as 21 tons of CO_2, and so on. 40 C.F.R. § 51.166(b)(48). But with this metric, a facility with the potential to emit only 4.184 tons of SF_6 (about 1/24,000th of EPA's 100,000-ton tailored threshold and a small percentage of the 100/250 ton statutory threshold) could become subject to SF_6 permitting requirements if the facility also emitted, for instance, 50 tons of CO_2 and 50 tons of N_2O. *Tailoring Rule*, 75 Fed. Reg. at 31,531 (setting forth the EPA-manufactured formula for GHG regulation under PSD and Title V). In short, not only are non-CO_2 emitters regulated under EPA's new PSD and Title V rules, even though automobiles emit minimal or nonexistent amounts of these substances, they are regulated at thresholds far below those set forth in the statute.

Finally, EPA's regulation of two pollutants not emitted by Section 202 sources further undermines EPA's position that it may narrowly consider only scientific issues in promulgating the Endangerment Rule and is prohibited from considering stationary-source impacts. *Sierra Club v. EPA*, 551 F.3d 1019, 1027 (D.C. Cir. 2008)

(EPA cannot divorce CAA regulatory definitions from statutory context). Had EPA in fact been limited to considering only the science of whether pollutants emitted by Section 202 sources contribute to endangerment, it would necessarily have lacked authority to conclude (illogically) that two pollutants not emitted by such sources cause or contribute to "endangerment."

D. The Administrator Made No Independent Judgment.

Section 202(a)(1) unequivocally requires the Administrator to make any endangerment determination that is to be made. Here the Administrator did not do so. Pressed for time to fulfill commitments to issue vehicle standards for which the Endangerment Rule was a necessary predicate, the Administrator did not undertake a full, open, critical review of the science. Instead, she relied almost exclusively on preexisting materials drawn from third-party sources: EPA "did not develop new science as part of this action and instead summarized the existing peer-reviewed assessment literature." RTC# 1-10; see also TSD 4, 8 (EPA "relie[d] most heavily" on this "assessment literature"). Indeed, so complete was the Administrator's reliance on "assessment literature" that she refused to conduct her "own assessment of all the underlying studies and information" on which the "assessment literature" relied. 74 Fed. Reg. at 66,511. EPA thus declined to undertake "a new and independent assessment." Id. The Administrator's exclusive reliance on a biased sample of third-party literature amounted to an abdication of her responsibility to exercise judgment. See generally Peabody Reconsideration Petition, Dkt. 11696.1.

II. THE ENDANGERMENT RULE VIOLATES THE STATUTE AND IS ARBITRARY AND CAPRICIOUS BECAUSE EPA REFUSED TO CONSIDER RELEVANT FACTORS.

The Endangerment Rule is also contrary to the Act and arbitrary and capricious because EPA failed both to consider relevant and important factors specified by Congress and to make real-world predictive judgments. As described below, EPA violated statutory requirements by failing to consider **(i)** the dangers to health and welfare posed by regulation (*see* Section II.A.); **(ii)** the evidence of ordinary human adaptation and mitigation (*see* Section II.B.); and **(iii)** the emissions reductions mandated by Congress in the Energy Independence and Security Act of 2007 ("EISA"), Pub. L. No. 110-140, 121 Stat. 1492 (Dec. 19, 2007) (*see* Section II.C.). Because EPA "entirely failed to consider" these important aspects "of the problem," its Endangerment Rule is arbitrary and capricious. *State Farm*, 463 U.S. at 43; *Motor Vehicle Mfrs. Ass'n v. EPA*, 768 F.2d 385, 389 n.6 (D.C. Cir. 1985). Agencies cannot rely on predictions about the future that demonstrably conflict with reality. *Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 922-23 (D.C. Cir. 1998); *Appalachian Power*, 249 F.3d at 1053-55.

A. EPA's Endangerment Assessment Is Impermissibly One-Sided.

Contrary to its admitted obligations, EPA did not consider the "totality of circumstances" in assessing whether the perceived danger "justif[ies] regulation under the CAA." 74 Fed. Reg. at 66,538, 66,542. Rather, it considered only those factors that favor regulating, while refusing to consider countervailing direct consequences of

regulating, *see* Am. Trucking Ass'ns v. EPA, 175 F.3d 1027, 1052 (D.C. Cir. 1999) (EPA must consider whether reducing ozone could have negative health effects), *rev'd on other grounds sub nom.* Whitman v. Am. Trucking Ass'ns, 531 U.S. 457 (2001); CEI v. NHTSA, 956 F.2d 321, 327 (D.C. Cir. 1992) (agency must consider safety impacts of increasing corporate average fuel economy ("CAFE") standards), and refusing to consider the indirect and negative health and welfare impacts entailed by increased regulatory compliance costs. Cf. International Union v. OSHA, 938 F.2d 1310, 1326 (D.C. Cir. 1991) (Williams, J., concurring) ("regulation reduces incomes and thus may exact a cost in human lives").

The GHGs EPA seeks to control are the necessary byproduct of combusting fossil fuels, which comprise 85% of domestic energy sources and create obvious health and welfare benefits for society. EPA's one-sided analysis caused it to overlook that, as mankind has emitted more and more GHGs, every indicator of human health and welfare has improved. This correlation is not coincidental; expanding energy use is foundational to modernity. Cf. Whitman, 531 U.S. at 496 (Breyer, J., concurring) ("Preindustrial society was not a very healthy society").

EPA's position here echoes its unlawful approach to applying the CAA's NAAQS provisions in American Trucking, 175 F.3d at 1052. There, EPA ignored evidence that ground-level ozone formed by human activities acted as a "defense against various cancers," contending that, by using the term "pollutant," the CAA required a narrow focus on only ozone's adverse health effects (and not its beneficial

health effects). Rejecting EPA's position, this Court held: "this fact of nomenclature does not visibly manifest a congressional intent to banish consideration of whole classes of 'identifiable effects.'" Id. at 1051.

EPA's blindfolded approach not only violates plain statutory text — which demands EPA's consideration of all types of effects that "may reasonably be anticipated" — it is also unreasonable as a matter of statutory construction. AT&T Corp. v. Iowa Utils. Bd., 525 U.S. 366, 388 (1999) (invalidating agency interpretation not "rationally related to the goals" of the governing statute). As American Trucking noted, "it seems bizarre that a statute intended to improve human health would, as EPA claimed at argument, lock the agency into looking at only one half of a substance's health effects in determining the maximum level for that substance." 175 F.3d at 1052. As in American Trucking, so too here; EPA's Endangerment Rule unlawfully seeks to truncate an important half of the statutory analysis.

EPA's failure to examine the health and welfare benefits and disbenefits of GHG-emitting activities is not legally compelled by the statute. To the contrary, what EPA calls the precautionary nature of a Section 202(a)(1) endangerment determination mandates that EPA regulate to the extent necessary, but no more than necessary, by assessing both the positive and negative effects of its regulations. Cf. Whitman, 531 U.S. at 473. An excess of precaution can be counterproductive. Id. at 495-496 (Breyer, J., concurring) ("a world that is free of all risk [would be] an

impossible and undesirable objective"); cf. Cass R. Sunstein, Beyond the Precautionary Principle, 151 U. PA. L. REV. 1003, 1003 (2003) (precautionary "principle is literally paralyzing . . . . fall[ing] victim to what might be called 'system neglect,' which involves a failure to attend to the systemic effects of regulation. Examples [include] numerous areas, [such as] global warming").

B. EPA Refused To Engage In A Real-World Assessment Of Endangerment.

The CAA directs the Administrator to regulate emissions "which in [her] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." Section 202(a)(1) (emphasis added); see also 74 Fed. Reg. at 66,505. In this case, EPA violated this directive by completely refusing to consider two real-world factors — adaptation and mitigation — that cut strongly against its conclusion that GHGs endanger public health and welfare. Id. at 66,512-14. Americans live comfortably in both Buffalo and Phoenix, adapting to climates that vary far more than EPA's forecasts for even the worst "climate change."

EPA's Endangerment Rule states that nothing can "change the issue before EPA — does the air pollution endanger public health or welfare, without considering future planned adaptation or mitigation?" RTC# 1-50 (emphasis added). But that made-up test engrafts new words into the statute. Cf. 74 Fed. Reg. at 66,512 (conceding that adaptation will likely "help protect public health and welfare from certain impacts of climate change"). Section 202(a)(1) (emphasis added) as written directs the

Administrator to evaluate whether emissions "*may reasonably be anticipated to* endanger public health or welfare." The statute does not permit EPA to make artificial distinctions among categories of reasonably anticipated public health and welfare effects.

EPA does not attempt to root its approach in statutory text. Instead, EPA argues that the CAA's *structure* prevents it from considering adaptation and mitigation. 74 Fed. Reg. at 66,513; *Reconsideration Denial*, 75 Fed. Reg. at 49,590. But nothing in the statute's structure overcomes Section 202(a)(1)'s plain textual directive that EPA assess reasonably anticipated effects on public health and welfare such as mitigation and adaptation, which are regarded even by the IPCC as a fundamental part of climate change science. RTC# 1-14 (noting IPCC considers "potential impacts and options for adaption and mitigation" in considering climate change). As OMB advised EPA, because "climate change … will create incentives for innovation and adaption," EPA's rule should "note this possibility and how it affects the likely impacts of climate change." Dkt. 0124 at 3.

It is arbitrary for EPA to issue an Endangerment Rule that leads to tailpipe emission standards while ignoring whether any harms from the regulated emissions will be independently averted or mitigated. *Cf. American Trucking*, 175 F.3d at 1051 (statute "does not visibly manifest a congressional intent to banish consideration of whole classes of 'identifiable effects'"). As EPA all but concedes, and as multiple commenters emphasized, adaptation and mitigation are important aspects of the CAA

problem that EPA should have considered. The United States undoubtedly has uniquely effective adaptive capabilities and, as the CCSP concluded, "is certainly capable of adapting to the collective impacts of climate change." TSD 82.

Significantly, EPA considered human responses to climate change in certain instances where they *supported* its Endangerment Rule. 74 Fed. Reg. at 66,535 n.32 (effects of climate change "could threaten U.S. national security"); id. at 66,531 (speculating about "humanitarian, trade, and national security issues for the United States" arising from human responses to climate change); id. at 66,533-34 (similar). EPA's selective and gerrymandered consideration of relevant evidence is textbook arbitrariness. TWA, *Inc. v.* CAB, 385 F.2d 648, 669 (D.C. Cir. 1967) ("the Board 'cannot blow hot and cold' and take inconsistent positions at the same time"); *West Ohio Gas Co. v. Public Util. Comm.* (No. 1), 294 U.S. 63, 71 (1935).

C. EPA Ignored A Relevant Post-Massachusetts Statute.

EPA also refused to consider emissions reductions from the relevant source category — new automobiles — that are required by separate statutory law. This failure is glaring, and unlawful, because such statutory emission reductions effectively suffice to achieve all benefits that would flow from EPA's regulations.

In the EISA fuel-economy law, Congress ordered GHG reductions from new vehicles. Fuel economy standards, which are the functional equivalent of tailpipe GHG standards, were to be increased to at least 35 miles per gallon over the course of model years 2011 through 2020. *Proposed Auto Rule*, 74 Fed. Reg. 49,454, 49,632 (Sept.

28, 2009) ("the only way at present to reduce tailpipe emissions of CO_2 is by reducing fuel consumption."); Final Auto Rule, 75 Fed. Reg. at 25,327 ("relationship between improving fuel economy and reducing CO_2 tailpipe emissions is a very direct and close one"). Congress enacted EISA more than eight months after Massachusetts, where the Court noted that "there is no reason to think" the Department of Transportation ("DOT"), with its responsibility for the CAFE program, and EPA, with its responsibility for Section 202(a)(1)'s auto emissions program, "cannot both administer their obligations and yet avoid inconsistency." 549 U.S. at 532. Senior government officials informed EPA that it needed to consider EISA's relevance for its GHG rulemakings. ANPRM, 73 Fed. Reg. at 44,361 (letter to EPA from Secretaries of Agriculture, Commerce, Transportation, and Energy); id. at 44,363 (DOT criticizing EPA for failing to give EISA adequate consideration); id. at 44,386 (President's Council on Environmental Quality, noting other GHG emission reduction programs EPA ignored).

In light of EISA's grant to NHTSA of independent authority to regulate CO_2 emissions, EPA regulation under the CAA is not needed to reduce GHG emissions from new motor vehicles. See Letter from O. Kevin Vincent, NHTSA Chief Counsel, to Office of Sen. Feinstein, Feb. 19, 2010. NHTSA's independent authority is critical because EPA concluded that the Endangerment Rule does not, standing alone, impose requirements on regulated entities and is merely "a precondition for exercising regulatory authority." 74 Fed. Reg. at 66,521. So conceived, the Endangerment Rule

does not independently produce public health or welfare benefits to counterbalance its adverse regulatory impacts. If EPA wants to pursue an Endangerment Rule, it must explain what EPA-authorized automobile-emissions rules could be expected to add to NHTSA-only automobile-emissions rules. EPA cannot reasonably claim that the vanishingly small incremental "benefits" of its Auto Rule are so vitally necessary as to leave EPA no choice but to risk the imposition of concededly absurd stationary source regulations.

In the Endangerment Rule, EPA effectively refused to address these telling criticisms, backhanding them as policy matters off-limits in an endangerment analysis. 74 Fed. Reg. at 66,501 (rejecting EISA-based arguments; Reconsideration Denial, 75 Fed. Reg. at 49,589-90 (similar). EPA's failure to consider EISA-mandated emission reductions is legally defective for the same reasons as EPA's refusal to consider adaptation and mitigation is flawed: (1) it creates an unrealistic, selective, and unreasonable analysis of endangerment, contrary to the text and purposes of Section 202(a); and (2) it ignores an important part of the problem, contravening State Farm.

III. THE ENDANGERMENT RULE'S HIGH RISK/HIGH HARM ASSESSMENT IS NOT SUPPORTED BY THE EVIDENCE ON WHICH EPA RELIES.

EPA contends the Administrator may find endangerment across a sliding scale, from a low likelihood of severe harm to a high likelihood of low harm. 74 Fed. Reg. at 66,505. Applying this scale, EPA concluded that GHGs pose a high likelihood of severe harm. Quoting the UN IPCC's Fourth Assessment Report ("AR4") verbatim,

EPA pronounced itself 90-99% certain that human GHG emissions are mostly responsible for what EPA termed the "unusual[ly]" high current planetary temperatures. TSD ES-2 ("most" recent temperature increases "very likely" due to anthropogenic GHG emissions"); id. at 7 ("very likely" means "90-99% probability"); 74 Fed. Reg. at 66,523 (current temperatures "unusual"). EPA likewise concluded that projected future warming will cause severe harm over the next century, citing catastrophic floods, droughts, pestilence, and hurricanes as risks to public health and welfare. 74 Fed. Reg. at 66,524-28.

Having adopted this high likelihood/high severity conclusion from the UN, EPA must show that the rulemaking record supports it. "It is well established that an agency's action must be upheld, if at all, on the basis articulated by the agency itself." State Farm, 463 U.S. at 50; Chenery, 332 U.S. at 196. Accordingly, EPA must "articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" State Farm, 463 U.S. at 43. Otherwise, EPA's risk assessment is arbitrary and capricious, running "counter to the evidence before the agency." Id.

This Court ordinarily accords EPA's scientific findings considerable deference, American Farm Bureau Federation v. EPA, 559 F.3d 512, 519 (D.C. Cir. 2009), while still testing their internal coherence and record support. Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 415, 416 (1971). But here no deference is warranted because EPA made none of its own scientific findings, relying instead almost entirely

on third-party "assessment literature." Section 202(a) unequivocally requires the Administrator to make an endangerment determination. In this case the Administrator did not do so, (see Section I.D., above) but instead pointed to preexisting "assessment literature" that supported the conclusions she had already reached. As a result, EPA's risk assessment is entitled to no deference, for "no deference is due when the agency has stopped shy of carefully considering the disputed facts," as EPA did here. Achernar Broad. Co. v. FCC, 62 F.3d 1441, 1447 (D.C. Cir. 1995); NLRB v. P*I*E Nationwide, Inc., 923 F.2d 506, 518 n.16 (7th Cir. 1991) ("deference given to an agency is not granted freely, it is purchased; the agency must exercise its touted expertise and 'explain the rationale and factual basis for its decision'").

In any event, EPA's high risk/high harm assessment is manifestly at odds with the specific evidence on which EPA relies. The "assessment literature" acknowledges profound scientific uncertainty regarding every major component of the climate system. All global climate models on which EPA relies are both based on modeling assumptions the IPCC admits may be wrong and have already proven unable to accurately project future temperatures. The evidence on which EPA relies reveals profound uncertainty, yet EPA finds profound certainty. This discrepancy is the essence of arbitrary and capricious decisionmaking.

A. EPA's 90-99% Certainty As To Likelihood Of Harm Is Refuted By EPA's Own Record Evidence.

The Endangerment Rule cites three "lines of evidence" in support of EPA's professed confidence that anthropogenic GHGs are the primary cause of warming: **(i)** its "basic physical understanding" of the climate system; **(ii)** the output of computer climate models; and **(iii)** recent temperatures that EPA contends are "unusual" in climate history. 74 Fed. Reg. at 66,523. But, as demonstrated below, each leg of this three-legged justification ultimately cannot withstand scrutiny.

1. EPA's Own Evidence Demonstrates That There Is Considerable Uncertainty As To Basic Climate Factors.

According to the IPCC, the principal factors that drive the Earth's climate system are: **(i)** the sun; **(ii)** albedo (reflective) effects, including from clouds; **(iii)** GHGs (mostly water vapor); and **(iv)** the climate's response to "external forcings," such as from aerosols (which cool the planet), volcanoes, or emissions from man-made sources. AR4, WG1 at 96. These are the "basic physical … effects" that comprise EPA's first line of evidence. 74 Fed. Reg. at 66,523. Given EPA's 90-99% confidence risk assessment, the record should reflect a high level of confidence in the basic physical components of the climate system. In fact, the record establishes the opposite.

The IPCC acknowledges in AR4, WG1 at 201-02, tbl. 2.11 (see App. C) a low level of scientific understanding and a lack of scientific consensus on most of these factors:

- **The Sun** — IPCC concedes there is a "low" level of scientific understanding and a lack of consensus about the sun's overall effect on climate. Id. at 202.

- **Clouds** — IPCC concedes there is no scientific consensus about the albedo or reflective effect of clouds or aerosols on the climate. The overall level of scientific understanding is low. Id. at 201.

- **Greenhouse gases** — The physical properties of GHGs are well understood, but whether the direct effect of GHGs is magnified or canceled depends on poorly understood feedback mechanisms, as discussed below.

- **Climate's response to external forcing** — "Forcing" refers to how the climate responds to external events like volcanic eruptions or, in this case, the emission of additional GHGs. AR4, WG1 at 945. The modeled projections of climate sensitivity to forcing are no more certain than the inputs the models use, which for the sun, for aerosols from volcanic eruptions, and for clouds and numerous other factors remain highly uncertain. Id. at 201-02 & tbl. 2.11, 630-31 & tbl. 8.2., fig. 8.14.

These uncertainties make EPA's 90-99% certainty as to the likelihood of human-induced global warming impossible to support on the record evidence EPA compiled. EPA goes to great lengths throughout the TSD to discuss uncertainties in climate change science, see, e.g., TSD 7-8, yet fails to reconcile these uncertainties with its 90-99% likelihood finding. Given this high level of asserted certainty (compare Appendix C), the issue is not, as EPA poses, whether "sufficient information exists to make an endangerment finding." 74 Fed. Reg. at 66,501 (quoting Massachusetts, 549 U.S. at 533-34). Rather, the issue is whether EPA can justify its high-likelihood conclusion, notwithstanding the pervasive uncertainties that both EPA and IPCC acknowledge. EPA cannot do so, and it never tries. This omission renders the

Endangerment Rule arbitrary. New York v. EPA, 413 F.3d 3, 31 (D.C. Cir. 2005) (agency must offer adequate rationale where "evidence in the record may also support other conclusions").

2. EPA's Extensive Reliance On Global Climate Models Is Irrational.

EPA relies extensively on global climate models to support its climate change predictions. According to EPA, these models "simulate the likely patterns of response of the climate system to different forcing mechanisms (both natural and anthropogenic)." 74 Fed. Reg. at 66,523. But computerized models are not magic talismans that obviate the need to satisfy the standard of rationality required by CAA Section 307(d)(9), which controls review of CAA rulemakings. Although computer modeling undoubtedly "is a useful and often essential tool," an "agency must sufficiently explain the assumptions and methodology used in preparing the model" and it must "provide a complete analytic defense of its model (and) respond to each objection with a reasoned presentation." Sierra Club v. Costle, 657 F.2d 298, 333 (D.C. Cir. 1981) (emphasis added) (internal quotation marks omitted), rev'd on other grounds, 463 U.S. 680 (1983). There must be "a rational connection between the factual inputs, modeling assumptions, modeling results and conclusions drawn from these results." Id.; see also Owner-Operator Independent Drivers Ass'n v. FMCSA, 494 F.3d 188, 203-05 (D.C. Cir. 2007). Here, however, EPA has not demonstrated a rational connection between profoundly uncertain model inputs and its professed high degree of certainty in the

model's outputs.

As an initial matter, the many fundamental uncertainties regarding the basic components of the climate system undermine any contention that the models' outputs can be accepted with a high degree of confidence. All of EPA's models rely on assumptions the record demonstrates are unreliable. For example, although GHGs absorb outgoing long-wave radiation (heat) and re-radiate some of it back to Earth's surface, increasing the amount of heat retained in the atmosphere, TSD ES-1, the direct heat-trapping effect of an assumed doubling of atmospheric CO_2 from pre-industrial levels would be relatively minimal, about 1.2°C according to IPCC. See AR4 WG1 at 631. Projections of harmful warming therefore come not from observed data on direct greenhouse effects, but from the assumption that increasing GHG concentrations will trigger "positive feedbacks" in the rest of the climate system. It is these feedbacks, projected to magnify GHGs' direct warming impacts that produce the estimates of temperature increases several times higher than 1.2°C. Id. at 631-33.

It is thus significant that the EPA-cited models all assume positive feedbacks in the atmosphere, primarily from clouds and water vapor. AR4, WG1, at 633 (models "all predict a positive cloud feedback (Figure 8.14) but strongly disagree on its magnitude."); see also id. at §§ 8.6.2.3, 8.6.3.2. The IPCC's AR4, however, acknowledges that: "[t]he sign [positive or negative] of the climate change radiative feedback associated with the combined effects of dynamical and temperature changes on extratropical clouds is still unknown." Id. at 637 (emphasis added). EPA is thus

forced to acknowledge that, "[b]ecause cloud responses to climatic change are important for both the trapping and reflection of energy … clouds contribute to uncertainties in model-based results," RTC# 4-3, and "cloud modeling is important for accurately representing [the] climate system and is subject to significant uncertainties." RTC# 4-16 (emphasis added).

In fact, the record demonstrates that the effects of model parameters about which "significant uncertainties" remain greatly outweigh the modest direct effect of GHG warming, making EPA's claim of 90-99% certitude impossible to maintain. For instance, the estimated total direct radiative effect of atmospheric CO_2 is +3.7 W/m^2 (watts per square meter). But the uncertainty range in models for radiation reflected back into space, i.e., the cooling effect of clouds, aerosols, etc., reflecting sunlight, is -25 W/m^2, nearly seven times the direct effect of CO_2. AR4, WG1 ch. 8 supp. maters., SM.8-27 & fig. S8.5. This makes assigning any certainty to modeled output, much less the high level EPA assigns, unsustainable. The CO_2 signal is lost in the noise of model uncertainties. As the IPCC acknowledges, "a set of model metrics that might be used to narrow the range of plausible climate change feedbacks and climate sensitivity has yet to be developed." AR4 WG1 at 640.

Equally significant, the models are an inappropriate basis for agency action because they fail the basic test of predicting recent climate. Appalachian, 249 F.3d at 1053 ("model assumptions must have a 'rational relationship' to the real world"). The models all predicted temperatures would continue to increase over the last 10-15 years

as global GHG emissions continued to increase. Actual temperatures, however, have not increased as the models predicted. RTC# 3-4.

The models' failure to accurately predict changes in climate goes to the heart of EPA's dubious claim to 90-99% certitude, as vividly evidenced by emails released from the Climate Research Unit at the University of East Anglia. In an email to a colleague regarding scientists' inability to understand why no warming has occurred since 1998, Dr. Kevin Trenberth, an IPCC lead author whom EPA cited 81 times in the Endangerment Rule and supporting documents, concluded that the lack of predicted warming means the understanding of the climate system reflected in the models is wrong:

> How come you do not agree with a statement that says we are no where close to knowing where energy is going or whether clouds are changing to make the planet brighter. We are not close to balancing the energy budget. The fact that we can not account for what is happening in the climate system makes any consideration of geoengineering quite hopeless as we will never be able to tell if it is successful or not! It is a travesty!

Dkt. 11696.1 at ES-25 (emphasis added). He also suggested the data must be wrong:

> The fact is that we can't account for the lack of warming at the moment and it is a travesty that we can't. The CERES data published in the August BAMS 09 supplement on 2008 shows there should be even more warming: but the data are surely wrong. Our observing system is inadequate.

Id. (emphasis added).

Or perhaps both the data and the basic physical understanding of the climate are inadequate. Dr. Trenberth's reference to the possibility that clouds may be making the planet "brighter" means GHGs may indeed be producing negative rather

than positive feedbacks. Dkt. 0049 at 45-46. And his reference to "geoengineering" includes reducing GHG emissions. Dkt. 11696.1 at ES-25. Dr. Trenberth's statement that "we will never be able to tell if [geoengineering] is successful or not" thus confirms that EPA cannot rationally conclude that reducing GHG emissions will reduce warming or, stated conversely, that GHG-emission increases cause warming. As the record establishes, the highly imperfect and uncertain models cannot rationally support EPA's 90-99% certitude:

> Since knowledge of the climate system's past and current states is generally imperfect, as are the models that utilize this knowledge to produce a climate prediction, and since the climate system is inherently nonlinear and chaotic, predictability of the climate system is inherently limited. Even with arbitrarily accurate models and observations, there may still be limits to the predictability of such a nonlinear system.

AR4, WG1 at 950 (glossary).

In addition, there is a substantial problem of circular logic in the extensive reliance on models to attribute warming to human GHG emissions. *Public Citizen v. FMCSA*, 374 F.3d 1209, 1219 (D.C. Cir. 2004) ("agency's reliance on the cost-benefit analysis to justify this increase is therefore circular, and the rationality of that explanation is correspondingly doubtful"). The observational record itself is inadequate for attribution. Dkt. 12197 at 54 ("[e]mpirical approaches [to attributing climate change to anthropogenic GHGs] are hampered by the relatively short duration of the climate record, the confounding of influences from various forcing mechanisms, and possible non-physical inconsistencies in the climate record that can

result from changing monitoring techniques analysis procedures."). Computer models are thus used to fill in gaps in the observational record. Id. at 31.

The datasets that are filled-in with model-produced data, however, are then used to validate the models, sometimes even those generating the fill-in data. Id. at 20. This circularity raises an obvious question, "can model based reanalysis products be used to validate model simulations?" Id. at 31. Despite these dubious foundations, EPA relies heavily on model simulations to reach its 90-99% certainty conclusion. Models are run with "natural forcings alone," i.e. without human GHG emissions and their assumed but unproven positive feedbacks, and the results are then compared to observations. From such "experiments" EPA concludes that "[c]limate model simulations by the IPCC … suggest natural forcings alone cannot explain the observed warming" and "[t]he observed warming can only be reproduced with models that contain both natural and anthropogenic forcings." TSD 49. But when there remain such deep uncertainties about both the "natural forcings" and the assumed positive feedbacks, using models that assume anthropogenic global warming to try to prove anthropogenic global warming is clearly circular. Nonetheless, this is what EPA did in the Endangerment Rule.

More fundamentally, notwithstanding the contradictory record evidence, and numerous comments objecting to its approach, EPA declined to offer reasoned explanations for how the "significant uncertainties" in the models on which it relies reconcile with the 90-99% certainty it assigns to GHG effects. The "basic physical

understanding" of clouds is far too uncertain to permit any confidence in modeld outputs. EPA's risk assessment thus runs "counter to the evidence before" it. State Farm, 463 U.S. at 43.

3. Temperature Data EPA Cites Contradict Its High Level Of Confidence That Current Temperatures Are Unusual.

Finally, we come to EPA's line of evidence that "indirect, historical estimates of past climate changes … suggest that the changes in global surface temperature over the last several decades are unusual." 74 Fed. Reg. at 66,518 (emphasis added). But they are "unusual" only by virtue of exquisitely arbitrary choices of what constitutes the "usual."

EPA reports that since 1850 with the end of the Little Ice Age, there have been two periods of pronounced temperature increases, 1910-1945 and 1977-1998, after which warming either ceased or slowed. EPA concluded "the 30-year rate of warming for the period from the 1910s to the 1940s is very similar to the rate of warming for the 1970s to the 2000s." RTC# 2-45. EPA presumes the first period of warming was probably not driven by anthropogenic GHGs, see RTC# 3-57, but claims — again with 90-99% certainty — that the second mostly was caused by GHG. See TSD ES-2. But if there are two similar instances of warming, and one was not caused by GHGs, how can EPA be 90-99% certain that the second one was?

EPA solves this conundrum by evaluating the evidence with a double standard. EPA relies on a 21-year warming trend from 1977 to 1998 when atmospheric GHG

concentrations were also rising to support its position, even while acknowledging that "[b]oth the IPCC and the TSD note that 'difficulties remain in attributing temperature changes on smaller than continental scales and over time scales of less than fifty years,' and that with limited exceptions attribution at these scales has not yet been established." Id. at 3 (emphasis added). By EPA's admission, therefore, the 1977-1998 warming involves too short a period to be attributed with high confidence to humans, and thus cannot support EPA's conclusions. EPA finds periods too short to be significant when the evidence undercuts its preordained warming conclusion, but finds similarly brief periods sufficient when the evidence supports that conclusion.

EPA used this double standard to explain the lack of warming since 1998, though CO_2 concentrations increased in that period. Dismissing the lack of actual warming since 1998, EPA stated that "shorter intervals (e.g., five to 10 years) can provide limited insight, and drawing conclusions from short time-scales is of limited value." RTC# 3-4. According to EPA, "observations over such [decade-long] periods examined in isolation may be misleading in the interpretation of the longer-term trend in temperatures." Id.

But when it suited EPA's purposes, it turned around and did exactly what it claims is "misleading":

> [C]limate change is happening even faster than previously estimated; global CO2 emissions since 2000 have been higher than even the highest predictions, Arctic sea ice has been melting at rates much faster than predicted, and the rise in the sea level has become more rapid.

RTC# 1-43 (emphasis supplied).

EPA thus made definitive attribution based on a 20-year trend while concluding that a 50-year trend is required. Likewise, sea-level trends of less than a decade were touted as evidence for EPA's conclusions, while a 13-year trend of no warming in the face of rising CO_2 levels was simultaneously dismissed as meaningless. This seemingly result-oriented double standard is the essence of arbitrary and capricious decision-making. *See County of L.A. v. Shalala*, 192 F.3d 1005, 1023 (D.C. Cir. 1999) ("As broad as her discretion [as HHS Secretary] is, it 'is not a license to ... treat like cases differently.'") (citation omitted).

The same flawed logic infects EPA's conclusion that current temperatures are "unusual" on longer time scales. Much scientific discussion has centered around whether current temperatures are higher than they have been in the last 1,000-2,000 years, or whether temperatures were warmer during the Medieval Warm Period around the year 1000 A.D and then declined during the Little Ice Age before again increasing since about the beginning of the nineteenth century. *See* TSD 31-32. The IPCC concluded the evidence "supports the conclusion" that current temperatures are unusual over the last 1,300 years but that "uncertainty is significant" before 1600. *Id.* at 32. EPA also relied on an NRC report, *id.*, but the NRC concluded it is no more than "plausible" that the present is warmer than 1,000 years ago. NRC Report 20-21 (Dkt. 0038). And EPA itself "note[s] significant uncertainty in the temperature record prior to 1600." 74 Fed. Reg. at 66,523. Yet EPA still claims that evidence that

today's temperatures are "unusual" is compelling. Id. But "plausible" is not "compelling." And "significant uncertainty" is not "90-99% certain."

B. EPA's Assessment Of Severe Harm Is Unsupported.

EPA's assertion of catastrophic harms is also refuted by numerous uncertainties and contradictions in the record. Forecasting floods, fire, drought, and pestilence years in advance is by definition a speculative undertaking, inviting "crystal ball inquiries" that EPA acknowledges are improper. 74 Fed. Reg. at 18,890. Nonetheless, EPA's Endangerment Rule relies on a laundry list of speculations that collectively exposes the absence of a rational basis for its endangerment determination. Some examples:

- It is "not clear whether reduced mortality from cold will be greater or less than increased heat-related mortality." TSD 83; 74 Fed. Reg. at 66,525.

- The EPA Interim Assessment "reports that considering a single meteorological variable, such as temperature, may not provide a sufficient basis for determining future ozone risks due to climate change in every region." TSD 90.

- "The overall directional impact of climate change on PM levels in the United States remains uncertain, as too few data yet exist on PM to draw firm conclusions about the direction or magnitude of climate impacts." TSD 93 (citation omitted); *see also* 74 Fed. Reg. at 66,525 (similar).

- "Although large portions of the United States may be at potential risk for diseases such as malaria based on the disruptions of competent disease vectors, locally acquired cases have been virtually eliminated." TSD 87; 74 Fed. Reg. at 66,526.

- The "scientific literature does not provide definitive data or conclusions on how climate change might impact aeroallergens and subsequently the prevalence of allergenic illnesses in the United States. In addition, there are numerous other factors that affect aeroallergen levels … many of which are difficult to assess." TSD 88; 74 Fed. Reg. at 66,525.

- "Based on expected vegetation changes and known environmental effects of forage protein, carbohydrate, and fiber contents, both positive and negative changes in forage quality are possible as a result of atmospheric and climatic change." TSD 102; 74 Fed. Reg. at 66,531.

- "Renewable energy production is highly susceptible to localized and regional changes in the resource base. As a result, the greater uncertainties on regional impacts under current climate change modeling pose a significant challenge in evaluating medium to long-term impacts." TSD 124.

- "It is not yet possible to project effects of climate change on the grid, because so many of the effects would be more localized than current climate change models can depict, but weather-related grid disturbances are recognized as a challenge for strategic planning and risk management." Id.

- "Effects of climate change on human settlements in the United States are very likely to vary considerably according to location-specific vulnerabilities." Id. at 129.

- In discussing sea level, EPA admits "erosion and ecosystem loss is affecting many parts of the U.S. coastline, but it remains unclear to what extent these losses result from climate change instead of land loss associated with relative sea level rise due to subsidence and other human drivers." Id. at 118.

- Regarding hurricanes, EPA admits "[f]requency changes in hurricanes are currently too uncertain for confident projections." Id. at ES-4.

EPA's analysis of the harms of climate change is one-sided. For instance, EPA disregards the projected beneficial effects of climate change as too uncertain, while

crediting projections of harm that are subject to quite similar uncertainties. EPA admits, for example, that "there is support for the view that in the near term climate change may have a beneficial effect [on grain and oilseed crop yields]," but disregards this evidence because of "significant uncertainty about the actual magnitude of any overall benefit." 74 Fed. Reg. at 66,531. EPA cites a possible "increase in heavy precipitation event frequency over most areas" as a cause of projected flooding, TSD 85, but dismisses beneficial effects of precipitation removing PM pollution from the atmosphere because "[p]recipitation … is particularly difficult to model." Id. at 94. This inconsistent approach to uncertainties regarding ultimate harms resembles the "rationalization" approach EPA used to address causation, demonstrating EPA's Rule cannot stand. See NRDC v. Reilly, 983 F.2d 259, 268 (D.C. Cir. 1993) (EPA and NHTSA "rationalized" their approach, leading to a conclusion that was "not defensible").

C. EPA's Endangerment Rule Improperly Disregards Statutory Limits On Its Authority

EPA's across-the-board failures to adequately support the harms described in its Endangerment Rule necessitate vacatur or remand of the entire rule.

EPA's findings in the Endangerment Rule assert that "elevated atmospheric concentrations of . . . [GHGs] may reasonably be anticipated to endanger the public health and welfare of current and future generations." 74 Fed. Reg. at 66,523 (emphasis added). Although EPA has not found and appears to have deliberately steered clear

of finding a current endangerment to current public health, it has framed its health-related finding in a way that would impact the current generation, albeit 10 to 20 years from now as opposed to immediately. Id. at 66,514. It is EPA's endangerment determination as to the current generation's future public health that simply cannot be reconciled with the directive that "climate" and "weather" are among the considerations defined under the Act's plain language as "welfare" effects and not as "public health" effects. CAA Section 302(h). This is consistent with the fact that assertions of public-health impacts from air pollutants have consistently been based on the direct — that is, inhalational — effects of exposure to the pollutant. See, e.g., NRDC v. EPA, 902 F.2d 962, 973 (D.C. Cir. 1990) (EPA may not consider health effects of increased unemployment when setting new health-based NAAQS). Welfare effects are, by nature, indirect. These legal deficiencies, combined with the lack of record evidence of public-health effects in the United States — as required by the CAA itself and as supplemented by obvious extraterritoriality canons — mean that the health-related findings in the Endangerment Rule, addressing asserted future public health risks from climate change, run afoul of the Act. The error is sufficiently serious to require vacatur, but at the very least the Rule must be remanded to remove those findings.

D. EPA Unlawfully Refused To Consult With The SAB.

If more confirmation of EPA's preordained conclusions were needed, it is supplied by EPA's failure to submit the Endangerment Rule to the Agency's Science Advisory Board ("SAB"), as required by 42 U.S.C. § 4365(c)(1).

The purpose of such submittals is to provide SAB an opportunity to make available "its advice and comments [to EPA] on the adequacy of the scientific and technical basis of the [regulatory proposals]." Id. at § 4365(c)(2). The duty of submittal is nondiscretionary. API v. Costle, 665 F.2d 1176, 1188 (D.C. Cir. 1981) (submissions to "the SAB for comment is mandatory"). Yet EPA asserts the SAB statute "did not require EPA to submit the proposed Endangerment Finding to SAB for review." RTP vol. 3, at 18.

Where, as here, an agency utterly fails to comply with a procedural rulemaking requirement imposed by a separate statutory command, the failure cannot be considered harmless error if there is any uncertainty regarding what the rule may have been but for the procedural misstep. Sugar Cane Growers Coop. v. Veneman, 289 F.3d 89, 96 (D.C. Cir. 2002) (Department of Agriculture's "utter failure" in Food Security Act rulemaking to satisfy APA notice-and-comment requirements "cannot be considered harmless if there is any uncertainty at all as to the effect of that failure") (emphasis added); New Jersey v. EPA, 626 F.2d 1038, 1039, 1049-50 (D.C. Cir. 1980) (reversing CAA rule because of failure to comply with APA procedural requirements).

Here, uncertainty clearly exists as to what SAB's comments or recommendations regarding the proposed Endangerment Rule might have been had EPA consulted it, and uncertainty also exists as to what EPA's response may have been to such comments or recommendations. Accordingly, EPA's "utter failure" to submit the proposed rule for SAB review inexorably creates uncertainty as to whether EPA's final action might have been different had SAB been consulted. It follows that EPA's bypass of the SAB violates a nondiscretionary duty under 42 U.S.C. § 4365(c)(1) and requires remand for EPA to reopen the rulemaking to make the required SAB submission.

To be sure, CAA rules can be overturned only where objections based on procedural grounds are "of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made." CAA Section 307(d)(8). But *Small Refiner*, 705 F.2d at 518-24, explains that those limitations apply only to the "*new* procedural protections" of the 1977 CAA Amendments and do not apply to procedures required by other statutes, *id.* at 522 (emphasis in original). Congress wanted to minimize disputes over EPA's compliance "*with the new procedures*" and did not intend to cut back on statutory procedural safeguards located outside the CAA. *Id.* (emphasis added). Accordingly, because the SAB submittal requirement is not a CAA procedure, the Act's limitations on procedural review do not apply to that requirement.

In any event, even under the more stringent standard, there is "substantial likelihood" that the Endangerment Rule would have been "significantly changed" had it been submitted to SAB review. Congressional contemplation of a substantial likelihood that EPA's regulatory proposals would undergo significant change as a result of SAB review is built into the fabric of the SAB statute; hence, SAB submission is mandatory. *See* API, 665 F.2d at 1188; *Kennecott Corp. v.* EPA, 684 F.2d 1007, 1017-1019 (D.C. Cir. 1982) (remand required where uncertainty caused by procedural violation raises inference of a substantial likelihood the rule would have been significantly changed but for the violation).

CONCLUSION

For the foregoing reasons, the Endangerment Rule and Reconsideration Denial should be vacated and remanded.

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Respectfully submitted,

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APPENDIX A — STATUTORY ADDENDUM

I. Environmental Research, Development, and Demonstration Authorization Act of 1978 Section 8, codified as amended, 42 U.S.C. § 4365(c)(1):

§ 4365. Science Advisory Board

* * *

(c) Proposed environmental criteria document, standard, limitation, or regulation; functions respecting in conjunction with Administrator

> **(1)** The Administrator, at the time any proposed criteria document, standard, limitation, or regulation under the Clean Air Act [42 U.S.C.A. § 7401 et seq.], the Federal Water Pollution Control Act [33 U.S.C.A. § 1251 et seq.], the Resource, Conservation and Recovery Act of 1976 [42 U.S.C.A. § 6901 et seq.], the Noise Control Act [42 U.S.C.A. § 4901 et seq.], the Toxic Substances Control Act [15 U.S.C.A. § 2601 et seq.], or the Safe Drinking Water Act [42 U.S.C.A. § 300f et seq.], or under any other authority of the Administrator, is provided to any other Federal agency for formal review and comment, shall make available to the Board such proposed criteria document, standard, limitation, or regulation, together with relevant scientific and technical information in the possession of the Environmental Protection Agency on which the proposed action is based.
>
> **(2)** The Board may make available to the Administrator, within the time specified by the Administrator, its advice and comments on the adequacy of the scientific and technical basis of the proposed criteria document, standard, limitation, or regulation, together with any pertinent information in the Board's possession.

II. Clean Air Act Section 165(a), 42 U.S.C. § 7475(a):

§ 7475. Preconstruction requirements

(a) Major emitting facilities on which construction is commenced
No major emitting facility on which construction is commenced after August 7, 1977, may be constructed in any area to which this part applies unless--

(1) a permit has been issued for such proposed facility in accordance with this part setting forth emission limitations for such facility which conform to the requirements of this part;

(2) the proposed permit has been subject to a review in accordance with this section, the required analysis has been conducted in accordance with regulations promulgated by the Administrator, and a public hearing has been held with opportunity for interested persons including representatives of the Administrator to appear and submit written or oral presentations on the air quality impact of such source, alternatives thereto, control technology requirements, and other appropriate considerations;

(3) the owner or operator of such facility demonstrates, as required pursuant to section 7410(j) of this title, that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of any (A) maximum allowable increase or maximum allowable concentration for any pollutant in any area to which this part applies more than one time per year, (B) national ambient air quality standard in any air quality control region, or (C) any other applicable emission standard or standard of performance under this chapter;

(4) the proposed facility is subject to the best available control technology for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility;

(5) the provisions of subsection (d) of this section with respect to protection of class I areas have been complied with for such facility;

(6) there has been an analysis of any air quality impacts projected for the area as a result of growth associated with such facility;

(7) the person who owns or operates, or proposes to own or operate, a major emitting facility for which a permit is required under this part agrees to conduct such monitoring as may be necessary to determine the effect which emissions from any such facility may have, or is having, on air quality in any area which may be affected by emissions from such source; and

(8) in the case of a source which proposes to construct in a class III area, emissions from which would cause or contribute to exceeding the maximum allowable increments applicable in a class II area and where no standard under section 7411 of this title has been promulgated subsequent to August 7, 1977, for such source category, the Administrator has approved the determination of best available technology as set forth in the permit.

III. Clean Air Act Section 169(1), 42 U.S.C. § 7479(1):

§ 7479. Definitions

For purposes of this part--

> **(1)** The term "major emitting facility" means any of the following stationary sources of air pollutants which emit, or have the potential to emit, one hundred tons per year or more of any air pollutant from the following types of stationary sources: fossil-fuel fired steam electric plants of more than two hundred and fifty million British thermal units per hour heat input, coal cleaning plants (thermal dryers), kraft pulp mills, Portland Cement plants, primary zinc smelters, iron and steel mill plants, primary aluminum ore reduction plants, primary copper smelters, municipal incinerators capable of charging more than fifty tons of refuse per day, hydrofluoric, sulfuric, and nitric acid plants, petroleum refineries, lime plants, phosphate rock processing plants, coke oven batteries, sulfur recovery plants, carbon black plants (furnace process), primary lead smelters, fuel conversion plants, sintering plants, secondary metal production facilities, chemical process plants, fossil-fuel boilers of more than two hundred and fifty million British thermal units per hour heat input, petroleum storage and transfer facilities with a capacity exceeding three hundred thousand barrels, taconite ore processing facilities, glass fiber processing plants, charcoal production facilities. Such term also includes any other source with the potential to emit two hundred and fifty tons per year or more of any air pollutant. This term shall not include new or modified facilities which are nonprofit health or education institutions which have been exempted by the State.

IV. Clean Air Act Section 202(a)(1)-(3), 42 U.S.C. § 7521(a)(1)-(3):

§ 7521. Emission standards for new motor vehicles or new motor vehicle engines

(a) Authority of Administrator to prescribe by regulation
Except as otherwise provided in subsection (b) of this section--

(1) The Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare. Such standards shall be applicable to such vehicles and engines for their useful life (as determined under subsection (d) of this section, relating to useful life of vehicles for purposes of certification), whether such vehicles and engines are designed as complete systems or incorporate devices to prevent or control such pollution.

(2) Any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period.

(3)(A) In general

(i) Unless the standard is changed as provided in subparagraph (B), regulations under paragraph (1) of this subsection applicable to emissions of hydrocarbons, carbon monoxide, oxides of nitrogen, and particulate matter from classes or categories of heavy-duty vehicles or engines manufactured during or after model year 1983 shall contain standards which reflect the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the model year to which such standards apply, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology.

(ii) In establishing classes or categories of vehicles or engines for purposes of regulations under this paragraph, the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, or other appropriate factors.

V. Clean Air Act Section 302, 42 U.S.C. § 7602(g), (j):

§ 7602. Definitions

When used in this chapter--

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

* * *

(j) Except as otherwise expressly provided, the terms "major stationary source" and "major emitting facility" mean any stationary facility or source of air pollutants which directly emits, or has the potential to emit, one hundred tons per year or more of any air pollutant (including any major emitting facility or source of fugitive emissions of any such pollutant, as determined by rule by the Administrator).

VI. Clean Air Act Section 307(d)(7)-(9), 42 U.S.C. § 7607(d)(7)-(9):

§ 7607. Administrative proceedings and judicial review

* * *

(d) Rulemaking

* * *

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural

determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies, the court may reverse any such action found to be--

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

VII. Clean Air Act Section 501(2), 42 U.S.C. § 7661(2):

§ 7661. Definitions

As used in this subchapter--

* * *

(2) Major source

The term "major source" means any stationary source (or any group of stationary sources located within a contiguous area and under common control) that is either of the following:

(A) A major source as defined in section 7412 of this title.

(B) A major stationary source as defined in section 7602 of this title or part D of subchapter I of this chapter.

APPENDIX B — CLEAN AIR ACT CROSS REFERENCES

Section		Title Of CAA
Clean Air Act	U.S. Code (42 U.S.C.)	
101-193	7401-7515	**Title I:** Air Pollution Prevention And Control
160-169b	7470-7492	**Title I, Part C:** Prevention Of Significant Deterioration
201-250	7521-7590	**Title II:** Emission Standards for Moving Sources
501-507	7661-7661f	**Title V:** [Stationary Source] Permits

		Name Of Specific Sections
165	7475	Preconstruction Permits
169	7479	Definitions
202	7521	Emission Standards For New Motor Vehicles Or New Motor Vehicle Engines
302	7602	Definitions
307	7607	Administrative Proceedings And Judicial Review

APPENDIX C — IPCC TABLE OF UNCERTAINTY ASSESSMENTS (JA __)

IPCC AR4, WG1 Report, Table 2.11:

Uncertainty Assessment of Forcing Agents Discussed in [*Chapter 2*]

Table 2.11. *Uncertainty assessment of forcing agents discussed in this chapter. Evidence for the forcing is given a grade (A to C), with A implying strong evidence and C insufficient evidence. The degree of consensus among forcing estimates is given a 1, 2 or 3 grade, where grade 1 implies a good deal of consensus and grade 3 implies an insufficient consensus. From these two factors, a level of scientific understanding is determined (LOSU). Uncertainties are in approximate order of importance with first-order uncertainties listed first.*

	Evidence	Consensus	LOSU	Certainties	Uncertainties	Basis of RF range
LLGHGs	A	1	High	Past and present concentrations; spectroscopy	Pre-industrial concentrations of some species; vertical profile in stratosphere; spectroscopic strength of minor gases	Uncertainty assessment of measured trends from different observed data sets and differences between radiative transfer models
Stratospheric ozone	A	2	Medium	Measured trends and its vertical profile since 1980; cooling of stratosphere; spectroscopy	Changes prior to 1970; trends near tropopause; effect of recent trends	Range of model results weighted to calculations employing trustworthy observed ozone trend data
Tropospheric ozone	A	2	Medium	Present-day concentration at surface and some knowledge of vertical and spatial structure of concentrations and emissions; spectroscopy	Pre-industrial values and role of changes in lightning; vertical structure of trends near tropopause; aspects of emissions and chemistry	Range of published model results, upper bound increased to account for anthropogenic trend in lightning
Stratospheric water vapour from CH_4	A	3	Low	Global trends since 1990; CH_4 contribution to trend; spectroscopy	Global trends prior to 1990; radiative transfer in climate models; CTM models of CH_4 oxidation	Range based on uncertainties in CH_4 contribution to trend and published RF estimates
Direct aerosol	A	2 to 3	Medium to Low	Ground-based and satellite observations; some source regions and modelling	Emission sources and their history vertical structure of aerosol, optical properties, mixing and separation from natural background aerosol	Range of published model results with allowances made for comparisons with satellite data
Cloud albedo effect (all aerosols)	B	3	Low	Observed in case studies – e.g., ship tracks; GCMs model an effect	Lack of direct observational evidence of a global forcing	Range of published model results and published results where models have been constrained by satellite data
Surface albedo (land use)	A	2 to 3	Medium to Low	Some quantification of deforestation and desertification	Separation of anthropogenic changes from natural	Based on range of published estimates and published uncertainty analyses
Surface albedo (BC aerosol on snow)	B	3	Low	Estimates of BC aerosol on snow; some model studies suggest link	Separation of anthropogenic changes from natural; mixing of snow and BC aerosol; quantification of RF	Estimates based on a few published model studies
Persistent linear Contrails	A	3	Low	Cirrus radiative and microphysical properties; aviation emissions; contrail coverage in certain regions	Global contrail coverage and optical properties	Best estimate based on recent work and range from published model results

Table 2.11 (continued)

	Evidence	Consensus	LOSU	Certainties	Uncertainties	Basis of RF range
Solar irradiance	B	3	Low	Measurements over last 25 years; proxy indicators of solar activity	Relationship between proxy data and total solar irradiance; indirect ozone effects	Range from available reconstructions of solar irradiance and their qualitative assessment
Volcanic aerosol	A	3	Low	Observed aerosol changes from Mt. Pinatubo and El Chichón; proxy data for past eruptions; radiative effect of volcanic aerosol	Stratospheric aerosol concentrations from pre-1980 eruptions; atmospheric feedbacks	Past reconstructions/estimates of explosive volcanoes and observations of Mt. Pinatubo aerosol
Stratospheric water vapour from causes other than CH_4 oxidation	C	3	Very Low	Empirical and simple model studies suggest link; spectroscopy	Other causes of water vapour trends poorly understood	Not given
Tropospheric water vapour from irrigation	C	3	Very Low	Process understood; spectroscopy; some regional information	Global injection poorly quantified	Not given
Aviation-induced cirrus	C	3	Very Low	Cirrus radiative and microphysical properties; aviation emissions; contrail coverage in certain regions	Transformation of contrails to cirrus; aviation's effect on cirrus clouds	Not given
Cosmic rays	C	3	Very Low	Some empirical evidence and some observations as well as microphysical models suggest link to clouds	General lack/doubt regarding physical mechanism; dependence on correlation studies	Not given
Other surface effects	C	3	Very Low	Some model studies suggest link and some evidence of relevant processes	Quantification of RF and interpretation of results in forcing feedback context difficult	Not given

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITATIONS

I HEREBY CERTIFY THAT that the foregoing brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(C) and this Court's order of March 22, 2011. *See* Order, *Coalition for Responsible Regulation v. EPA*, No. 09-1322, (Doc. 1299368) (Mar. 22, 2011) (limiting this brief to 15,000 words). As determined by the Microsoft Word software used to produce this brief, it contains 14,988 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Circuit Rule 32(a)(1).

Dated: May 20, 2011

/s/ Eric Groten

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing JOINT OPENING BRIEF OF NON-STATE PETITIONERS AND SUPPORTING INTERVENORS was filed electronically with the Court by using the CM/ECF system on this 20th day of May 2011. Most participants in the case are registered CM/ECF users and will be served by the appellate CM/ECF system. The following counsel that are not CM/ECF users will be served via U.S. mail, first-class:

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