Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act; Final Rule (74 Fed. Reg. 66,496)
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The Environmental Protection Agency's (EPA's) Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act were effective as of January 14, 2010. The EPA's endangerment finding defines the term “air pollution” as referenced under § 202 of the Clean Air Act (CAA) as the combination and atmospheric presence of six greenhouse gases (GHGs)—carbon dioxide (CO$_2$) methane (CH$_4$), nitrous oxide (N$_2$O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF$_6$)—and that these gases pose a threat to public health and welfare. The EPA's cause or contribute finding states that the combined emissions of four of these GHGs—CO$_2$, CH$_4$, N$_2$O, and HFCs—by motor vehicle engines contribute to the atmospheric presence of these climate altering GHGs.

The six GHGs identified in the endangerment finding were chosen because of their shared properties, similar effects on the environment, and the extent to which they are anthropogenic, or rather, caused by human activity. The totality of accumulated scientific evidence led the EPA to conclude that these GHGs do in fact harm or threaten to harm the public. The EPA made this determination after full consideration of both currently recognized and contemplated future environmental impacts of these GHGs. The high atmospheric concentrations of these GHGs are deemed to be the result of anthropogenic emissions and are the suspected source of increases in average temperature and other climate variances. The EPA considered the magnitude of public health and welfare risks presently observed in the United States and attributable to the environmental impacts of these GHGs sufficient to justify the promulgation of the EPA's endangerment and cause or contribute findings. In further justifying the promulgation of its findings, the EPA relied on the

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existence of scientific evidence demonstrating further attributable impacts of these combined GHGs outside of the United States.

Under § 202(a) of the CAA, the EPA must determine whether emissions from air pollutants from new motor vehicles and engines generate or add to air pollution reasonably projected to pose a threat to public health or welfare. In essence, § 202(a) creates a two-prong test for determining the EPA’s authority to enact a regulation under that provision of the CAA. The first prong requires the establishment of a satisfactory evidentiary link convincing the EPA that a particular substance contributes to air pollution that could reasonably harm the public. The second prong requires the determination that new automobiles generate the substance causing the pollution. The rule specifically would find that the aggregate effect of CO$_2$, CH$_4$, N$_2$O, and HFCs present in new motor vehicle emissions amplifies harmful air pollution. The two additional GHGs enumerated in the endangerment finding—PFCs and SF$_6$—are not present within motor vehicle emissions.

The U.S. Supreme Court’s decision in Massachusetts v. EPA was the catalyst for these findings. The International Center for Technology Assessment (ICTA) and eighteen other environmentally centered organizations petitioned the EPA to issue standards for the emissions of the four new motor vehicle and engine-emitted GHGs that are subject to regulation under the EPA’s findings. The EPA’s findings are directly responsive to that petition.

The effect of climate change is potentially important to the protection of public health and welfare under the construction of the CAA. Projected effects of climate change include wildfires, adverse effects on air quality, flooding, drought, increased magnitude of storms, agricultural harms, and detrimental effects on wildlife and ecosystems. Due to the likelihood that GHGs contribute to these impacts, considered a 90% to 99% probability by the Intergovernmental Panel on Climate Change (IPCC), the EPA found that the combination of these six GHGs falls within the purview of the agency’s mandate under the CAA to protect the health and welfare of the public. The EPA does not contend that the emission of these gases has any direct effects on human health in terms of toxicity or as a catalyst to secondary disease. The health and welfare effects referenced by the EPA are the negative environmental manifestations stemming from climactic change. The EPA also concedes that other anthropogenic products, such as water vapor, ozone, and suspended particulate matter may contribute to the environmental changes connected to GHG emissions, but for various reasons, has limited the expanse of this regulation to the six enumerated GHGs.
EDITOR'S NOTE: As of the date of publication, critics of the EPA's endangerment and cause or contribute findings for GHGs, including the U.S. Chamber of Commerce and the state of Virginia, have filed petitions with the U.S. Court of Appeals for the District of Columbia asking the court to reconsider or remand the EPA's findings.