

As [Dan mentioned earlier](#), EPA today issued [its proposed finding](#) that emissions of six greenhouse gases, taken together, endanger public health and welfare, and that emissions of four of these gases from cars contribute to the problem.

The proposal rests on a robust interpretation of EPA's authority to find endangerment, supported by a detailed and persuasive analysis of the text and legislative history of the Clean Air Act. EPA concludes that in deciding whether air pollution endangers public health or welfare it can aggregate pollutants with related effects, in other words, it is not required to evaluate each GHG separately. It finds that uncertainty is not a barrier to an endangerment finding: endangerment is a function of both the probability and magnitude of harm, such that the greater the magnitude the less certainty is needed. It concludes that it must consider future as well as current harms, extending out as far as the lifetime of the pollutant's effects, which for CO₂ is "at least the remainder of this century." It finds that public health effects need not be the direct result of the pollutant at issue, but may be mediated by changes in climate. It rejects the argument that it cannot regulate emissions from motor vehicles unless those emissions alone are shown to be endangering health or welfare. It rejects the claim that the ability to adapt to a changing climate is relevant to the endangerment finding. And it also rejects the argument that the possibility of some beneficial effects in some places must be balanced against the harms in determining endangerment.

Applying this interpretation, EPA finds: (1) that atmospheric GHG concentrations are at unprecedented, and still climbing, levels; (2) that those levels are unambiguously due to human activities; (3) that there is "compelling" evidence that those GHG levels "are the root cause of recently observed climate change;" (4) and that the entire suite of effects of climate change, including changes in temperature, precipitation, sea level rise, sea ice cover, storm frequency and intensity, fire frequency and intensity, taken together, are already affecting both public health and welfare, and that those effects will become more severe as time goes on. EPA explicitly finds endangerment based solely on effects in the United States alone, but also notes that additional global effects support its conclusion.

As EPA sums up its endangerment finding:

The Administrator concludes that, in the circumstances presented here, the case for finding that greenhouse gases in the atmosphere endanger public health and welfare is compelling and, indeed, overwhelming. The scientific evidence described here is the product of decades of research by thousands of scientists from the U.S. and around the world. The evidence points ineluctably to the

conclusion that climate change is upon us as a result of greenhouse gas emissions, that climatic changes are already occurring that harm our health and welfare, and that the effects will only worsen over time in the absence of regulatory action. The effects of climate change on public health include sickness and death. It is hard to imagine any understanding of public health that would exclude these consequences. The effects on welfare embrace every category of effect described in the Clean Air Act's definition of "welfare" and, more broadly, virtually every facet of the living world around us. And, according to the scientific evidence relied upon in making this finding, the probability of the consequences is shown to range from likely to virtually certain to occur. This is not a close case in which the magnitude of the harm is small and the probability great, or the magnitude large and the probability small. In both magnitude and probability, climate change is an enormous problem. The greenhouse gases that are responsible for it endanger public health and welfare within the meaning of the Clean Air Act.

Since cars and trucks were responsible for nearly a quarter of all GHG emissions in the U.S. and roughly 4% of global emissions in 2006, EPA concludes that they contribute to the public health and welfare problem. If it were evaluating GHGs individually, EPA explains that it would consider emissions of each of the GHGs produced by mobile sources (CO₂, methane, nitrous oxide, and hydrofluorocarbons) to contribute to the problem and merit regulation. As EPA articulates it, the key test for whether a pollutant causes or contributes to pollution that endangers public health or welfare is whether that pollutant is a part of the problem that could be reduced. As the agency explains with respect to methane:

Specifically, these emissions are at a level that contributes to the climate change problem and there are valuable reductions available from these levels.

At this point, EPA insists that this finding is relevant only to emissions from mobile sources, and has implications only for regulation of those sources. The agency says that it expects to have draft tailpipe GHG regulations ready to propose "several months from now." With respect to other parts of the Clean Air Act, such as setting a National Ambient Air Quality Standard or implementing New Source Review, EPA says simply that it "is continuing to evaluate its response" and will address those issues in later actions.