



# EPA's Endangerment Finding

## Frequently Asked Questions

### What has EPA determined in these Findings?

The Administrator finds that under section 202(a) of the Clean Air Act greenhouse gases threaten both the public health and the public welfare, and that greenhouse gas emissions from motor vehicles contribute to that threat.

This final action has two distinct “findings,” which are:

- 1) The “Endangerment Finding,” in which the Administrator finds that the mix of atmospheric concentrations of six key, well-mixed greenhouse gases threatens both the public health and the public welfare of current and future generations. These six greenhouse gases are: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). These greenhouse gases in the atmosphere constitute the “air pollution” that threatens both public health and welfare.
- 2) The “Cause or Contribute Finding,” in which the Administrator finds that the combined greenhouse gas emissions from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key greenhouse gases and hence to the threat of climate change.

### Will these Final Findings impose any requirements under the Clean Air Act?

The action does not itself impose any requirements on industry or other entities. It does, however, pave the way for EPA to finalize the proposed greenhouse gas emission standards for light-duty vehicles, which were proposed in conjunction with the Department of Transportation’s Corporate Average Fuel Economy (CAFE) standards earlier this year.

### Why is EPA issuing these findings?

By issuing this action, EPA is responding to the April 2007 *Massachusetts v. EPA* Supreme Court decision, in which the court found that greenhouse gases are air pollutants under the Clean Air Act. The Court held that EPA must determine whether or not emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. (See <http://epa.gov/climatechange/endangerment/downloads/timeline.pdf>)

What is EPA’s rationale for making the finding that the elevated concentrations of greenhouse gases in the atmosphere endanger both public health and welfare of current and future generations?

EPA considered both observed and projected effects of greenhouse gases in the atmosphere, their effect on climate, and the public health and public welfare risks and impacts associated with such climate change. The assessment focused on both public health and public welfare impacts within the United States, but noted that the current and expected impacts of climate change in other parts of the world can adversely affect the United States.

### How is EPA defining the “air pollution” caused by greenhouse gas emissions under the Clean Air Act?

The word “air pollution” is defined as the six well-mixed and directly emitted greenhouse gases that together constitute the root of the air pollution problem that is causing climate change. These include

carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>).

### **What is EPA's rationale for making the finding that emissions of greenhouse gases from on-road vehicles cause or contribute to the climate change problem?**

The greenhouse gas emissions from section 202(a) source categories (essentially all on-road vehicles) account for about 4 percent of total global greenhouse gas emissions and just over 23 percent of total U.S. greenhouse gas emissions. Greenhouse gas emissions from the on-road vehicles are the second largest greenhouse gas emissions source in the United States, behind the electricity generating sector. U.S. emissions from on-road vehicles are also greater than the total greenhouse gas emissions from every other individual nation with the exception of China, Russia, and India. EPA's determination treats emissions of the six key greenhouse gases collectively as an "air pollutant" under the Clean Air Act and paves the way for regulating emissions from cars.

### **What are the impacts of climate change that endanger public health and welfare?**

The impacts of climate change that will cause harm to human health and welfare of current and future generations include but are not limited to: increased drought; more heavy downpours and flooding; more frequent and intense heat waves and wildfires; greater sea level rise; more intense storms; and harm to water resources, agriculture, wildlife, and ecosystems.

### **What information did EPA review in forming this judgment?**

EPA gave careful consideration to all of the scientific and technical information in the record and relied primarily on published, well-vetted climate change assessment literature. That information, including the recent assessment of the U.S. Global Change Research Program, released in June 2009, is summarized in the Technical Support Document (TSD). In addition, EPA reviewed and considered scientific literature and views submitted through public comments and provided responses in EPA's Response to Comment document. All these documents together form the basis for the final determinations.

### **Did the public comment process result in any change to the findings since the proposal?**

The key elements of the proposal remain unchanged in the final findings: concentrations of greenhouse gases threaten both public and welfare, and emissions of greenhouse gas air pollutants from cars contribute to that threat. Based on EPA's careful review of the public comments, EPA has concluded that the science remains overwhelmingly consistent that current and future greenhouse gas concentrations in the atmosphere do endanger both public health and public welfare.

### **Why didn't EPA include black carbon in the definition of air pollution in this finding?**

Black carbon is now recognized as an important climate-forcing agent with particular impact on the Arctic region. Scientific data on its contribution to the climate change problem is growing. Under this action, the definition of air pollution includes six well-mixed greenhouse gases that share common properties and are the best understood drivers of climate change. EPA recognizes the importance of black carbon and is committed to fully evaluate its role on climate change.

### **What requirements are imposed by this action? How do these findings relate to other proposed Clean Air Act rules for greenhouse gases?**

This action does not itself impose any requirements on industry or other entities. It does allow EPA to finalize the [greenhouse gas emission standards for light-duty vehicles](#) proposed jointly with the Department of Transportation's Corporate Average Fuel Economy (CAFE) standards on September 15, 2009.

### **Are stationary source permits under the Prevention of Significant Deterioration (PSD) and Title V operating permit programs triggered by this action?**

No, this action does not trigger PSD or Title V permitting. Finalization of the GHG emission standards for motor vehicles, proposed on September 15, 2009 would trigger these programs. EPA proposed a PSD and Title V GHG [Tailoring Rule](#) on September 30, 2009 to address this issue.

### **Did EPA rush to issue these finding?**

No. It has been over 2-½ years since the Supreme Court determined that greenhouse gases are pollutants under the Clean Air Act. It has been more than 14 months since EPA issued its Advance Notice of Proposed Rulemaking on this issue. Finally, it has been more than 10 years since the original petition for rulemaking that led to the Supreme Court's decision was filed. Since that time, EPA has been evaluating the entire body of scientific literature, which has become increasingly compelling that the root cause of global warming is greenhouse gas concentrations in the atmosphere and that the impacts of climate change threaten both public health and welfare.