



National Aeronautics and  
Space Administration

**Principal Center for Regulatory Risk Analysis and Communication**

## **REGULATORY SUMMARY**

### ***Greenhouse Gas Endangerment and Cause or Contribute Findings***

This information was prepared by NASA's Principal Center for Regulatory Risk Analysis and Communication (RRAC PC). If you have further questions or need assistance, please contact the RRAC PC Manager, Sharon Scroggins (256-544-7932, [sharon.scroggins@nasa.gov](mailto:sharon.scroggins@nasa.gov)).

## **Introduction**

On 15 December 2009, the U.S. Environmental Protection Agency (EPA) issued the final rule ([74 Federal Register \[FR\] 66497](#)) titled, "*Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act*," which will allow EPA to regulate greenhouse gases (GHG) under the Clean Air Act (CAA).

EPA found that the combination of six GHGs endangers the public health and welfare of current and future generations. EPA also found that the combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to GHG air pollution that endangers the public health and welfare under CAA Section 202(a). The findings are based on scientific evidence and a thorough review of 380,000 public comments received on the proposed rule ([74 FR 18886](#)). The final rule will become effective 14 January 2010.

## **Background**

The proposed rule for the regulation of GHGs under the CAA stems from several judicial and regulatory actions over the past several years, as described in the following sections.

### **Massachusetts v. EPA**

On 2 April 2007, in *Massachusetts v. EPA* ([549 U.S. 497](#) [2007]), the U.S. Supreme Court held that GHGs are air pollutants subject to regulation under Section 202(a) of the CAA. The decision held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles or motor vehicle engines may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision.

### **2008 Advance Notice of Proposed Rulemaking**

On 30 July 2008, EPA published an Advance Notice of Proposed Rulemaking (ANPR) titled, "*Regulating Greenhouse Gas Emissions under the Clean Air Act*" ([73 FR 44354](#)), in response to the *Massachusetts v. EPA* court decision. The ANPR outlined options and solicited public comments regarding regulatory approaches and issues associated with the regulation of GHGs under the CAA.

### **Light-duty Motor Vehicle Rule**

On 28 September 2009, EPA issued a proposed rule ([74 FR 49453](#)) with the National Highway and Traffic Safety Administration (NHTSA) titled, "*Proposed Rulemaking to Establish Light-Duty*

*Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards*” (referenced as the “Light Duty Vehicle Rule” or “LDVR” rule). In the LDVR, the two agencies propose a National Program consisting of new standards for light-duty vehicles that will reduce GHG emissions and improve fuel economy for passenger cars, light-duty trucks, and medium-duty passenger vehicles, covering model years 2012 through 2016. Promulgation of this rule, expected in March 2010, will establish GHGs as regulated pollutants for the first time. Facilities would be required to count GHG emissions, along with emissions of certain other pollutants, when determining the applicability of permitting requirements, including those associated with prevention of significant deterioration (PSD) and CAA Title V permits, because these requirements apply to “any regulated pollutant” emitted above specified thresholds.

## Summary of the Final Rule

EPA’s final rule includes two separate findings: the “Endangerment Finding” and the “Cause or Contribute Finding” under Section 202(a) of the CAA. The “Endangerment Finding” states that the atmospheric concentrations of six key, well-mixed GHGs threaten the public health and welfare of current and future generations. Specifically, the Administrator is defining the “air pollution” referenced in CAA Section 202(a) to include the mix of six long-lived and directly emitted GHGs: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

The “Cause or Contribute Finding” states that the combined GHG emissions from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of the six GHGs and to the threat of climate change.

These findings do not impose any requirements to reduce GHG emissions. However, they provide EPA with the ability to finalize the proposed light-duty motor vehicle rule and to engage in future rulemakings to regulate GHG emissions.

## Applicability to NASA

This final rule does not impose any direct regulatory requirements. Rather, it lays the necessary groundwork to allow EPA to regulate GHGs under the CAA. Such regulations have the potential to affect both NASA facilities and Programs. One such regulation is the LDV rule described above, which will regulate GHGs as air pollutants. When the LDV rule is finalized, GHGs will become regulated pollutants and both the PSD and Title V programs could automatically apply to certain facilities because these regulations apply to “any regulated pollutant” emitted above specified thresholds. NASA Centers could face new permitting requirements for GHG emissions under the Title V and PSD programs.