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United States Government Accountability Office
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Congressional Requesters

Subject: *Clean Air Act: Historical Information on EPA's Process for Reviewing California Waiver Requests and Making Waiver Determinations*

Emissions from mobile sources, such as automobiles and trucks, contribute to air quality degradation and can threaten public health and the environment. Under the Clean Air Act, the Environmental Protection Agency (EPA) regulates these emissions. The act generally allows one set of federal standards for new motor vehicle emissions and pre-empts states from adopting or enforcing their own standards. However, it also authorizes the EPA Administrator to waive this provision to allow the state of California¹ to enact and enforce emission standards for new motor vehicles that are as protective, in the aggregate, as federal government standards. Other states may also adopt California's standards if they choose. The waiver provision was added to the Federal Air Quality Act (one of the precursors of the current Clean Air Act) in 1967 because of California's severe air pollution problems and because the state had already established its own emission standards for mobile sources.

California has used this waiver provision regularly to establish and enforce standards for vehicle emissions more stringent than those required by federal law. However, California must request a waiver of federal pre-emption and the EPA Administrator must approve it before California or any other state can implement such standards. Since being given this authority, California has requested and been granted waivers more than 50 times.²

The Clean Air Act specifies, under section 209(b), that the EPA Administrator shall grant a waiver if the state has determined that its standards will be, "in the aggregate, at least as protective of public health and welfare as applicable federal standards." However, the statute prohibits the EPA Administrator from granting a waiver if it is found that: (1) the state's protectiveness determination was arbitrary and capricious, (2) the state's standards are not needed to meet "compelling and extraordinary conditions," or (3) the state's standards are inconsistent with certain Clean Air Act provisions related to technical feasibility and lead time to manufacturers.

¹The act does not name California but waives the prohibition on the development of separate state standards for any state that had adopted certain motor vehicle emission standards prior to March 1966. California is the only state that had adopted such standards.

²Incomplete and missing documentation precluded us from determining the exact number of waiver requests California has made since 1967 and from developing comprehensive information on EPA's responses to them.

In December 2005, California requested a waiver from EPA to allow it to regulate motor vehicle emissions of greenhouse gases, which are closely linked to global climate change. At the time, EPA was responding to litigation initiated by environmental groups and state and local governments regarding whether greenhouse gas emissions were air pollutants that the agency had authority to regulate under the Clean Air Act. EPA delayed action on California's waiver request pending the outcome of that litigation. On April 2, 2007, the U.S. Supreme Court decided the question in *Massachusetts v. EPA* by holding that EPA did have the authority to regulate greenhouse gas emissions. Nevertheless, on December 19, 2007, the EPA Administrator announced his intent to deny California's request. The Administrator subsequently formalized the denial in a decision document he signed and EPA published in the *Federal Register* on March 6, 2008. The decision has received a high level of attention for a number of reasons. For example, it departed in certain respects from EPA's previous waiver determinations—it was the first time that EPA denied a formal waiver request outright, and it also was the first time EPA used the “compelling and extraordinary conditions” criterion in the Clean Air Act as the basis for denying a waiver request.³

Due to the atypical outcome of EPA's decision regarding California's greenhouse gas waiver request, you asked us to review the decision to deny the waiver. As agreed with your offices, we focused our work on the process for and outcomes of past waiver requests because the greenhouse gas waiver decision is the subject of ongoing litigation. Thus, we did not seek to examine the basis for the greenhouse gas decision itself or the process EPA used in reviewing this waiver request. This report summarizes the information about prior waiver requests and decisions provided to your staffs during our November 21, 2008, briefing.

To identify EPA's typical California waiver review process and to analyze the outcomes of waiver requests, we reviewed key EPA documents that identify the steps EPA takes in reviewing waiver requests and making waiver decisions; we also reviewed agency decision documents. We interviewed officials from EPA's Office of Transportation and Air Quality and Office of General Counsel involved in reviewing waiver requests and preparing supporting documentation for EPA's decision, as well as California Air Resources Board officials involved in waiver requests. In addition, we compiled information on previous waiver requests based on documents provided by EPA and the California Air Resources Board. We supplemented this information by reviewing the final EPA decision documents and *Federal Register* announcements for waiver requests. Using these sources, we analyzed the universe of requests to identify the outcomes of waiver requests. However, our analyses were limited to some extent by incomplete and missing documentation, which precluded us from determining the exact number of waiver requests California has made and from developing comprehensive information on EPA's responses to them. Nonetheless, we believe that the available information supports the statements about the (1) typical waiver review process EPA has used in reviewing past waiver requests and (2)

³In this case, EPA considered whether the specific standard at issue was needed to meet compelling and extraordinary conditions related to a specific pollutant (greenhouse gas emissions). Until this decision, EPA had looked at the whole California program in determining compliance with this waiver criterion, and thus the agency had not examined whether the specific standards at issue were needed to meet compelling and extraordinary conditions related to a specific pollutant.

waiver decisions provided in this report; these statements have also been verified by cognizant EPA officials. To ensure our efforts were not duplicated, we coordinated our work with the EPA Office of Inspector General.⁴ We conducted this engagement from June 2008 to December 2008 in accordance with all sections of GAO's Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions.

EPA's Process for Reviewing California Requests for Waivers of Federal Pre-emption under the Clean Air Act, and Outcomes of Past Requests

EPA's process for responding to waiver requests has typically consisted of an informal five-step process, through which staff evaluate the waiver request and review its adherence to criteria laid out in section 209(b) of the Clean Air Act. According to EPA officials, the agency

- receives and begins review of the waiver request;
- issues a notice in the *Federal Register* about the waiver request, including the opportunity for a hearing;
- holds a hearing, if interest is expressed, and accepts public comments on the proposed waiver;
- holds internal discussions and conducts internal analysis on the waiver request, including consideration of public comments; and
- prepares a decision document and publishes the decision in the *Federal Register*.

EPA officials said that as the draft decision document is routed through the approval chain at EPA, it is typically accompanied by a draft *Federal Register* notice, which lays out the decision and the three statutory criteria in section 209(b) and summarizes the analysis behind the decision. The draft decision document is also usually accompanied by an "action memorandum" that identifies the issues, examines the three Clean Air Act section 209(b) criteria, summarizes public comments, discusses anticipated reaction from external parties and potential for litigation, and provides a recommendation for action. A one-page summary of the action memo is also typically provided. For the past 15 years, several officials in EPA's Office of Transportation and Air Quality have been the primary staff involved in reviewing waiver requests and preparing documents supporting decisions. Typically, EPA's Office of General Counsel then reviews these documents before a final decision is made by EPA's Assistant Administrator for Air and Radiation. According to the EPA Office of Transportation and Air Quality officials involved in the process over the past 15 years, the approving official's decisions have generally aligned with staff recommendations to approve waivers, whether in full or in part.

⁴EPA Office of Inspector General, *EPA's California Waiver Decision on Greenhouse Gas Automobile Emissions Met Statutory Procedural Requirements*, Report No. 09-P-0056 (Washington, D.C., Dec. 9, 2008).

While some of these steps are documented in the *Federal Register* and the public docket that EPA maintains for each decision, others—specifically internal discussions, internal analyses, decision document drafts, and the documents that accompany the drafts through the approval chain—are generally not formally documented, retained, or made publicly available. In addition, the contents of the public dockets for waiver decisions are not standardized and vary from decision to decision. The majority of the dockets were prepared 10 or more years ago, and we could not determine the extent to which they are complete. Consequently, it is not feasible to identify the specific internal actions that EPA has taken or the discussions the agency has held with internal and external parties when deliberating previous waiver requests.

However, available information does show that EPA’s informal process for past waiver decisions has led to the following outcomes:

- The majority of the waiver requests were granted in full—that is, approximately 42 waivers have been fully granted.⁵
- Waivers were granted in part when EPA found that aspects of the waiver request did not meet the criteria under Section 209(b). EPA has granted waivers in part approximately nine times since 1967.⁶
- Determinations that a waiver should be granted in part were usually based on the Section 209(b) criterion covering technical feasibility and lead time issues.⁷ (See enc. I for information on waiver decisions that were granted in part and EPA’s rationale for these decisions.)
- Decision documents were drafted prior to announcements about waiver decisions. As discussed earlier, these documents are typically drafted after the public hearing and public comment processes are complete.
- Since the mid-1980s, Assistant Administrators generally signed the waiver decisions rather than Administrators. Since 1992, it has been the official duty of the Assistant Administrator for Air and Radiation to sign waiver decisions.⁸

Agency Comments and Our Evaluation

We provided a statement of facts supporting this report to EPA officials in the Office of Air and Radiation’s Office of Transportation and Air Quality and the Office of General Counsel for their review and comment. They generally agreed with the information and provided technical comments, which we have incorporated where appropriate.

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⁵Missing documents and inconsistently recorded information preclude us from developing exact statistics on the number of waivers granted or granted in part.

⁶EPA has used a variety of terms to characterize waivers that were granted in part, including partially denied, granted with exceptions, granted with minor exceptions, granted with conditions, or no action taken on portions of the request. In this report, we use the term, “waivers granted in part.”

⁷The only instance where EPA used a different criterion in declining to fully grant a waiver was a waiver request that was granted with exceptions in 2002 because EPA found that California’s protectiveness determination for a particular aspect of the standard was arbitrary and capricious.

⁸The authority to approve waivers was officially delegated to the Assistant Administrator for Air and Radiation in 1992.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies to the Administrator, EPA; appropriate congressional committees; and other interested parties. The report also will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you or your staffs have any questions about this report, please contact me at (202) 512-3841 or stephensonj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. Key contributors to this report include Christine Fishkin (Assistant Director), Laura Gatz, Joanna Owusu, Karen Keegan, Antoinette Capaccio, and Elizabeth Beardsley.

A handwritten signature in black ink, reading "John B. Stephenson". The signature is written in a cursive style with a long horizontal flourish at the end.

John B. Stephenson
Director, Natural Resources
and Environment

Enclosures

List of Requesters

The Honorable Barbara Boxer
Chairman
Committee on Environment and Public Works
United States Senate

The Honorable Dianne Feinstein
Chairman
Subcommittee on Interior, Environment, and Related Agencies
Committee on Appropriations
United States Senate

The Honorable Benjamin L. Cardin
The Honorable Hillary Rodham Clinton
The Honorable Amy Klobuchar
The Honorable Frank R. Lautenberg
The Honorable Joseph I. Lieberman
The Honorable Bernard Sanders
The Honorable Sheldon Whitehouse
United States Senate

EPA’s Basis for California Waivers Granted in Part, 1968-2008

Waiver description	Aspects of historical waiver requests that EPA concluded did not meet section 209(b) criteria ⁹	Waiver request date	Waiver announcement date (<i>Federal Register</i>)
Amendments to California’s Zero Emission Vehicle regulations affecting 2006 and prior year vehicles and 2007-2011 vehicles.	<i>Technological feasibility/lead time:</i> EPA affirmed that certain amendments to regulations affecting 2006 and prior-year vehicles were within the scope of previous waivers and thus continued to qualify for a waiver, and it granted a waiver for regulations affecting 2007 through 2011 vehicles but did not grant a waiver for a regulation affecting 2012 and later vehicles (the commercial phases of Zero Emission Vehicle implementation). EPA did not believe that the fuel-cell technology required would be available for commercial application by 2012. (Decision Document, p. 57)	9/23/2004	12/28/2006
Onboard Refueling Vapor Recovery (ORVR) standards and test procedures, and amendments to evaporative emission test procedures.	<i>Protectiveness determination arbitrary and capricious:</i> This is the only instance in which EPA denied a waiver in part on this basis. EPA concluded that the California Air Resources Board’s (CARB) finding in support of its ORVR regulations was arbitrary and capricious to the extent the regulations applied to vehicles other than gaseous fueled vehicles. EPA granted the waiver for the ORVR standards in all other respects. A decision on a waiver for CARB’s amendments to emission test procedures was deferred. (67 <i>Fed. Reg.</i> 54180, 54181) ¹⁰	7/22/1997	8/21/2002
Emissions standards and certification procedures for 1979 and later heavy-duty motor vehicles.	<i>Lead time:</i> There was not time for manufacturers to retool facilities to produce vehicles in compliance with the proposed standard by 1979. Rather than deny the waiver outright, however, EPA granted it on the condition that manufacturers could instead comply with the 1978 standard for another year. (42 <i>Fed. Reg.</i> 31637, 31640-41)	11/12/1976	6/22/1977
Evaporative hydrocarbon emission standards and Sealed Housing for Evaporative Determinations test procedures for 1977 and later light-duty vehicles.	<i>Lead time:</i> Because there was not sufficient time to apply the new technological requirements to 1977 vehicles but there was sufficient time to apply them to 1978 vehicles, the waiver was denied for 1977 and granted for 1978 and later years. (40 <i>Fed. Reg.</i> 30311, 30311)	4/23/1975	7/18/1975
Stricter standards for hydrocarbon, carbon monoxide, and oxides of nitrogen emissions for 1975 and later light-duty trucks.	<i>Technological feasibility/lead time:</i> While the technology existed to achieve the proposed standards for hydrocarbon and carbon monoxide and there was enough time to implement that technology, the costs associated with adopting the standards by 1975 were prohibitive. A waiver was thus denied as it applied to the 1975 model year, but EPA suggested an alternative acceptable standard for 1975. There was adequate lead time to achieve the standards without excessive cost by 1976, however; thus, a waiver was granted for 1976 and subsequent model years. No technology was available to achieve California’s proposed standard for oxides of nitrogen by 1975, and thus a waiver was denied for that standard, but EPA suggested an alternative acceptable standard for 1975. (38	8/17/1973	11/1/1973

⁹EPA has used a variety of terms to characterize waivers that were granted in part, including partially denied, granted with exceptions, granted with minor exceptions, granted with conditions, or no action taken on a portion of the request. In this report, we use the term, “waivers granted in part.”

¹⁰This text is taken from the *Federal Register* announcement. A decision document was developed for this waiver, but neither the EPA Docket Library nor CARB could locate it.

Waiver description	Aspects of historical waiver requests that EPA concluded did not meet section 209(b) criteria ⁹	Waiver request date	Waiver announcement date (<i>Federal Register</i>)
Standards and test procedures for 1973-1976 gasoline light-duty vehicles; carbon monoxide standard for 1975 passenger cars.	<i>Fed. Reg.</i> 30136, 30136) <i>Technological feasibility/lead time:</i> The Clean Air Act required that hydrocarbon and carbon monoxide levels be reduced during 1975 by 90% from their 1970 levels. EPA could suspend this requirement for 1 year based in part on technological feasibility. Industry applied for a suspension. California applied for a waiver to apply standards close to the federal requirement. EPA waived pre-emption for California's hydrocarbon and nitrogen oxide standards but denied a waiver for its carbon monoxide standard based on technological feasibility and lead-time concerns. As an alternative, EPA proposed an interim federal standard that required more stringent technological controls for cars shipped to California than to elsewhere in the country (<i>38 Fed. Reg.</i> 10317, 10319)	9/29/1971	4/25/1972 4/26/1973 3/15/1974 ¹¹
Assembly-line test procedures for 1973 and later motor vehicles; statutory requirement for use of 91 research octane gasoline in testing 1972 model year vehicles.	<i>Lead time:</i> EPA overturned previous waiver denial (11/18/1970) for assembly-line test procedures, agreeing that it could not deny a waiver based on overall cost as opposed to benefit if adequate compliance time were provided. EPA upheld its waiver denial regarding 91 research octane fuel, however, because there was inadequate time for manufacturers to apply the technology necessary to use the new fuel at a reasonable cost. (<i>36 Fed. Reg.</i> 17458, 17458-59)	5/25/1971	8/31/1971
Various exhaust standards and test procedures for heavy-duty diesel engines, heavy-duty gasoline engines, gasoline light-duty vehicles; and assembly-line test procedures from 1972 through 1975 and later vehicles.	<i>Lead time:</i> Waived exhaust standards and test procedures for 1972 model gas-powered light-duty vehicles except insofar as they did not make special provision for calculation of hydrocarbon and carbon monoxide emissions from off-road utility vehicles and required use of 91 research octane fuel. Waived assembly-line test standards and procedures except as applied to 1973 gas-powered light-duty vehicles. Waived certain other standards except insofar as 91 research octane fuel was required for testing 1972 vehicles. EPA made these exceptions because there was not time to apply the required technology at a reasonable cost in any case, and with regard to assembly-line test procedures, there was no evidence that the new standard would result in reduced emissions. (<i>36 Fed. Reg.</i> 8172, 8172)	11/18/1970 (CARB adoption date) ¹²	4/30/1971
Exhaust standards for 1970, and later light-duty vehicles; oxides of nitrogen standards for 1974 and later light-duty vehicles; gasoline exhaust standards for 1972 and later heavy-duty vehicles; and evaporative standards for 1970 and later light-duty vehicles.	<i>Exceptions related to technological feasibility/lead time:</i> Due to technological feasibility and lead-time issues, exhaust emission standards and test procedures for 1970 gas-powered light-duty vehicles were not to be applied to off-road utility vehicles until April 30, 1970, and not at all unless provision was made for calculating emissions of hydrocarbons and carbon monoxide. Due to technological feasibility issues, standards and procedures for 1971 and later gas-powered light-duty vehicles were not to be applied to off-road utility vehicles unless provision was made for calculating emissions of hydrocarbons and carbon monoxide. Due to technological feasibility issues, fuel evaporative emission standards and test procedures for 1970 and later gas-powered light-duty vehicles were not to be applied to off-road utility vehicles until April 30, 1970. (<i>34 Fed. Reg.</i> 7348, 7348)	7/25/1968 (CARB adoption date) ¹²	5/6/1969

Source: GAO analysis of EPA and CARB data.

(360970)

¹¹This waiver request was addressed through decisions announced in three separate *Federal Register* announcements.

¹²The date of California's request for this waiver was unavailable. The date provided reflects the date CARB adopted the standard.

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