California State Motor Vehicle and Engine Pollution Control Standards; Advanced Clean Cars II; Waiver of Preemption

Decision Document

United States Environmental Protection Agency

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Office of Transportation and Air Quality
U.S. Environmental Protection Agency

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EPA-420-R-24-023
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On December 26, 2023, the Environmental Protection Agency (EPA) published a *Federal Register* notice announcing its receipt of the California Air Resources Board's (CARB's) request for a waiver of regulations applicable to new 2026 and subsequent model year (MY) California on-road light- and medium-duty vehicles, hereinafter the Advanced Clean Cars II (ACC II) regulations.[1] The notice for comment on this waiver request indicated that the request would be open for public comment until February 27, 2024. The Docket ID No. for the waiver is EPA-HQ-OAR-2023-0292. EPA also held a public hearing on the waiver request, and the transcript of that hearing is included in the docket. In this Decision Document, EPA is taking final action to waive preemption for CARB's ACC II regulations, pursuant to section 209(b) of the Clean Air Act (CAA).[2] The Decision Document incorporates by reference a Supplemental Response to Comments (SRTC) document.[3] EPA is also providing notice of the availability of this Decision Document in the *Federal Register*.

[1] 88 FR at 88908–88910 (Dec. 26, 2023).
[2] The Decision Document can be found in the public docket at regulations.gov at EPA-HQ-OAR-2023-0292.
[3] The Supplemental Response to Comments (SRTC) document can be found at EPA-HQ-OAR-2023-0292.

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I. Executive Summary

Today, as Administrator of the EPA, I am granting California's request for a waiver of Clean Air Act (CAA, the Act) preemption for California's Advanced Clean Cars II (ACC II) regulations. The ACC II regulations combine the control of smog and soot causing pollutants (including fine particulate matter ($PM_{2.5}$), oxides of nitrogen (NOx) and hydrocarbons (HC), which are precursors of ground-level ozone), greenhouse gases (GHG) that are contributing to climate change, and toxic air pollutants. The ACC II regulations are a single coordinated package

of requirements that phase-in during model year (MY) 2026 through 2035 (the program continues in the 2036 MY and thereafter without any increase in stringency) for on-road light- and medium-duty engines and vehicles. The ACC II regulations are composed of revisions to both California's Low Emission Vehicle (LEV) and Zero Emission Vehicle (ZEV) regulations. By letter dated May 22, 2023, CARB submitted a request that EPA grant a waiver of preemption under CAA section 209(b), 42 U.S.C. 7543(b) for the revisions to the LEV and ZEV regulations.[4]

The framework for this decision stems from the CAA section 209(b) waiver provision first adopted by Congress in 1967 and later modified in 1977. Congress established that there

[4] CARB submitted a cover letter along with a support memo as part of its waiver request at EPA-HQ-OAR-2023-0292-0034**.** The support memo to the request is referred to as the "Waiver Request Support Document," The waiver request also included attachments such as the CARB Board Resolutions and Initial and Final Statement of Reasons documents associated with the ACC II state rulemaking. These are located in the EPA public docket at regulations.gov and the docket number EPA-HQ-OAR-2023-0292. The ACC II regulations consist of the following new sections of Cal. Code Regs., tit. 13: 1961.4, 1962.4, 1962.5, 1962.6, 1962.7, and 1962.8; and amendments to the following sections of tit. 13: 1900, 1961.2, 1961.3, 1962.2, 1962.3, 1965, 1968.2, 1969, 1976, 1978, 2037, 2038, 2112, 2139, 2140, 2147, 2317, and 2903. These are in Attachment 7, Office of Administrative Law Approval with regulatory text, November 30, 2022. The ACC II regulations also adopted the following incorporated test procedures: California 2015 Through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light Duty Trucks, and Medium-Duty Vehicles; California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles; California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, And Heavy-Duty Vehicles; California Refueling Emission Standards and Test Procedures for 2001 and Subsequent Model Motor Vehicles; California Non-Methane Organic Gas Test Procedures for 2017 and Subsequent Model Year Vehicles; California Test Procedures for Evaluating Substitute Fuels and New Clean Fuels in 2015 and Subsequent Years; California Exhaust Emission Standards and Test Procedures for 2018 Through 2025 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes; and California Test Procedures for 2026 and Subsequent Model Zero-Emission Vehicles and Plug-In Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes. These are in Attachment 8. EPA notes that the applicable GHG emission standards for these categories of new motor vehicles were not amended by ACC II. The ACC I regulations included GHG regulations that phased-in through the 2025 model year and continue at the 2025 levels thereafter. EPA's waiver decision for ACC II does not pertain to the ACC I GHG regulations. The ACC I regulations included ZEV regulations that also phased-in through the 2025 model year. As described herein, CARB has amended its ZEV regulations so that the ACC I ZEV regulations no longer apply after the 2025 model year and are instead replaced with ACC II ZEV regulations that commence with the 2026 model year (with a phase-in through 2035 model year) and continue at the full phase-in levels in 2036 and thereafter. EPA's waiver in this action covers the new ZEV requirements for the 2026 and all model years thereafter.

would be only two programs for control of emissions from new motor vehicles:[5] federal emission standards adopted under the Act, and California emission standards adopted under state law. Congress accomplished this by preempting all state and local governments from adopting or enforcing emission standards for new motor vehicles, while at the same time providing that California could receive a waiver of preemption for its emission standards and enforcement procedures. Certain other states can adopt standards that are identical to California's standards. This statutory regime struck an important balance that protected manufacturers from multiple and different state emission standards and preserved a role for state level innovation in the control of emissions from new motor vehicles. Congress recognized that California could serve as a pioneer and a laboratory for the nation in setting new motor vehicle emission standards that could then be applied in multiple other states. Congress intentionally structured this waiver provision to restrict and limit EPA's ability to deny a waiver to ensure California's broad discretion to determine the best means to protect the health and welfare of its citizens. In particular, CAA section 209(b) specifies that EPA must grant California a waiver if California determines that its standards are, in the aggregate, at least as protective of the public health and welfare as applicable federal standards. EPA may deny a waiver only if it makes at least one of three factual findings specified under the CAA. Therefore, EPA's role upon receiving a request for waiver of preemption from California is to determine whether it is appropriate to make any of the three findings specified by the CAA, and if EPA cannot make at least one of the three factual findings, then the waiver must be granted. The three criteria for denial of a waiver are: first, whether California's determination (that its standards are, in the aggregate, at least as protective

[5] Throughout this notice, we sometimes use the terms "motor vehicles" or "vehicles" to refer collectively to the "motor vehicles" and "motor vehicle engines" described in the Act.

as applicable federal standards) is arbitrary and capricious (CAA section 209(b)(1)(A)); second, whether California does not need such standards to meet compelling and extraordinary conditions (CAA section 209(b)(1)(B)); and third, whether California's standards and accompanying enforcement procedures are not consistent with CAA section 202(a) (CAA section 209(b)(1)(C)). Section 209(b) places the burden on the opponents of a waiver to demonstrate that one of the criteria for a denial has been met. These key elements of EPA's approach to the waiver program date back to the earliest days of the Act and have been both ratified by Congress and affirmed by the Court of Appeals for the District of Columbia Circuit.

In this case, California submitted a waiver request for its Advanced Clean Cars II (ACC II) regulations. The ACC II program, like its ACC I program predecessor, contains multiple and complementary regulatory elements. Specifically, California is requesting a waiver of CAA preemption for revisions to its Low Emission Vehicle (LEV) program, now called LEV IV, as well as revisions to its Zero Emission Vehicle (ZEV) regulatory program. As CARB stated in its Waiver Request Support Document, "The emission reductions from the ACC II regulations, taken together, are necessary to attain the State and National Ambient Air Quality Standards (NAAQS) for criteria pollutants in California, reduce the burden of air pollution throughout the State (including and especially in overburdened communities near roadways and other high-traffic areas), and reduce statewide GHG emissions to at least 85% below the levels of 1990 to

achieve the State's goal of carbon neutrality by 2045."[6] EPA has previously granted a series of waiver and within-the-scope decisions regarding CARB's LEV and ZEV standards.[7]

On December 26, 2023, EPA issued a notice of opportunity for hearing and comment for the California regulations at issue here.[8] As part of EPA's public comment process for CARB's waiver request, we received comments from state and local governments, health and environmental organizations, industry, and other stakeholders. CARB also submitted additional comments.[9] EPA has considered all comments including those submitted after the close of the comment period. After an evaluation of the record including the public comments, I have determined that the opponents to the waiver have not met their burden, and the record does not support EPA denying CARB's waiver request under any of the three waiver prongs set forth in CAA section 209(b)(1). As such, EPA is granting CARB's ACC II regulations waiver request.

[6] Waiver Request Support Document, pp.2–3.
[7] EPA's LEV waiver decisions are found at 58 FR 4166 (January 13, 1993); 64 FR 42689 (August 5, 1999); 68 FR 19811 (April 22, 2003); 70 FR 22034 (April 28, 2005); and 75 FR 44951 (July 30, 2010). EPA's GHG waiver decisions are found at 73 FR 12156 (March 6, 2008) (GHG waiver denial); 74 FR 32744 (July 8, 2009) (GHG waiver); 76 FR 34693 (June 14, 2011); 79 FR 46256 (Aug. 7, 2014); 81 FR 95982 (Dec. 29, 2016). EPA's most recent ZEV waiver decisions are found at 71 FR 78190 (December 28, 2006); 76 FR 61095 (October 3, 2011); and 88 FR 20688 (June 13, 2022). The LEV waiver decision in 1993 also included a waiver for CARB's first ZEV regulations. Given CARB's need to address a variety of air pollutants and interrelated vehicle technologies within its light-duty vehicle emission program, it commenced with its Advanced Clean Car (ACC) program. EPA issued a waiver for the ACC program in 2013, recognizing the interrelated nature of the air pollutants CARB was addressing, as well as the relationship between the technologies needed to address its criteria pollutant problems, the greenhouse gas impacts related to such pollutants, and the impacts of climate change within California. *See* 78 FR 2112, 2113, 2117, 2124, 2125 (January 9, 2013).
[8] 88 FR 88908 (December 26, 2023).
[9] See California comment, EPA-HQ-OAR-0292-0540 (Supplemental Comments); CARB comment, EPA-HQ-OAR-0292-0227 (CARB Public Hearing Response), California Office of the Attorney General, *et al.* EPA-HQ-OAR-2023-0292-0235 (States and Cities).

II. Background

A. EPA's Consideration of CARB's Request

On December 26, 2023, EPA announced the opportunity for hearing and comment on CARB's waiver request.[10] EPA held a public hearing on January 10, 2024, to provide the public with an opportunity to present oral testimony.[11] The written comment period ended on February 27, 2024. EPA has considered all comments submitted to the public docket on this matter.

B. Principles Governing this Review

The CAA has been a paradigmatic example of cooperative federalism, under which "States and the Federal Government [are] partners in the struggle against air pollution."[12] In Title II, Congress authorized EPA to promulgate emission standards for mobile sources and generally preempted states from adopting their own standards.[13] At the same time, Congress created an important exception for the State of California.[14]

Since the earliest days of the Act, EPA has generally employed a consistent legal framework for adjudicating California's waiver requests, founded on the statutory text, context,

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[10] 88 FR 88908 (December 26, 2023).

[11] A transcript of the public hearing is located at EPA-HQ-OAR-2023-0292-0056. EPA received a request on February 20, 2024, to extend the written comment period from February 27, 2024, to March 28, 2024. EPA denied this request on February 21, 2024 (EPA-HQ-OAR-2023-0292-0061) and noted that the "64-day comment period for California's Advanced Clean Car II waiver request to be appropriate and to provide a meaningful opportunity to comment on the request. EPA received no further requests and received written comment from this requester on February 27, 2024 (EPA-HQ-OAR-2023-0292-0226) that did not express any further concern based on EPA's denial of the request to extend the written comment period.

[12] *General Motors Corp. v. United States*, 496 U.S. 530, 532 (1990).

[13] "The regulatory difference [between Titles I and II] is explained in part by the difficulty of subjecting motor vehicles, which readily move across state boundaries, to control by individual states." *Engine Mfrs. Ass'n v. EPA (EMA)*, 88 F.3d 1075, 1079 (D.C. Cir. 1996). Congress also asserted federal control in this area to avoid "the specter of an anarchic patchwork of federal and state regulatory programs" nationwide. *Motor & Equip. Mfrs. Asso. v. Envtl. Prot. Agency (MEMA I),* 627 F.2d 1095, 1109 (D.C. Cir. 1979).

[14] *See, e.g.*, S. Rep. No. 403, 90th Cong., 1st Sess. 33 (1967) (The waiver of preemption is for California's "unique problems and pioneering efforts."); 113 Cong. Rec. 30950, 32478 ("[T]he State will act as a testing agent for various types of controls and the country as a whole will be the beneficiary of this research.") (Statement of Sen. Murphy); *MEMA I* at 1111.

purpose, and history.[15] EPA's longstanding approach has been repeatedly ratified by Congress[16] and upheld by the courts.[17] In today's adjudication, EPA recites and applies these same longstanding principles.[18]

1. Scope of Preemption and Waiver Criteria Under the Clean Air Act

The legal framework that governs today's decisions stems from the waiver provision first adopted by Congress in 1967 and its subsequent amendments. In Title II of the CAA, Congress established only two programs for control of emissions from new motor vehicles—EPA emission standards adopted under the Act and California emission standards adopted under its state law.[19] Congress accomplished this by preempting all state and local governments from adopting or enforcing emission standards for new motor vehicles, while at the same time providing that California could receive a waiver of preemption for its emission standards and enforcement procedures in keeping with its prior experience regulating motor vehicles, its role as a laboratory for innovation in emission reduction technologies for vehicles, and its serious air pollution

[15] See the Federal Register citations collected in this and following sections, especially, 36 FR 17458 (August 14, 1971); 40 FR 23102 (May 28, 1975); 61 FR 53571; 58 FR 4166 (January 13, 1993); 71 FR 58190 (December 28, 2006); 74 FR 32744 (July 8, 2009); 78 FR 2211 (January 9, 2013); 87 FR 14332 (March 14, 2022). *See also* the following sections for specific discussion of our interpretation of each waiver prong.

[16] *MEMA I,* 627 F.2d at 1110. (citing H.R.Rep. No. 294, 95th Cong., 1st Sess. 301-02 (1977)) (describing the 1977 Amendments as ratifying the waiver provision and EPA's interpretation, and quoting the House Committee Report which states "The Committee amendment is intended to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, i. e., to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare."); CAA section 209(e) (in the 1990 CAA Amendments, ratifying the waiver provision and EPA's interpretation by re-enacting Section 209(b)'s language almost exactly to provide a waiver for California regulation of nonroad vehicles and engines in Section 209(e)).

[17] *See, e.g.*, *Motor & Equip. Mfrs. Ass'n v. Nichols*, 142 F.3d 449 (D.C. Cir. 1998) (*MEMA II*); *Motor & Equip. Mfrs. Asso. v. Envtl. Prot. Agency,* 201 U.S. App. D.C. 142, 627 F.2d 1128, 1132 (1979*); MEMA I*, 627 F.2d 1095 (D.C. Cir. 1979); *Ford Motor Co. v. Envtl. Prot. Agency (Ford)*, 606 F.2d 1293 (D.C. Cir. 1979).

[18] *See Loper Bright Enters. v. Raimondo (Loper Bright)*, 144 S. Ct. 2244, 2257-59 (2024) (respect is warranted for the interpretations of the Executive Branch, particularly for interpretations that were issued roughly contemporaneously with enactment of the statute and remained consistent over time) (collecting authorities including *Edwards' Lessee v. Darby*, 25 U.S. 206 (1827) and *Skidmore v. Swift & Co*., 323 U. S. 134 (1944)).

[19] Motor vehicles are "either 'federal cars' designed to meet the EPA's standards or 'California cars' designed to meet California's standards." *EMA*, 88 F.3d at 1079–80, 1088; see also id. ("Rather than being faced with 51 different standards, as they had feared, or with only one, as they had sought, manufacturers must cope with two regulatory standards.").

problems.[20] This framework struck an important balance that protected manufacturers from multiple and different state emission standards and preserved a role for state level innovation to advance emissions control from new motor vehicles. Recognizing both the harsh reality of California's air pollution and California's ability to serve as a pioneer and a laboratory for the nation in setting new motor vehicle emission standards and developing control technology, Congress intentionally structured this waiver provision to restrict and limit EPA's ability to deny a waiver, ensuring that California had broad discretion in selecting the best means to protect the health and welfare of its citizens.[21]

Accordingly, CAA section 209(a) preempts states or political subdivisions from adopting or attempting to enforce any standard relating to the control of emissions from new motor vehicles or new motor vehicle engines. However, under the terms of CAA section 209(b)(1), after notice and opportunity for public hearing, EPA must waive the application of section 209(a) to California unless the Administrator finds that at least one of three criteria (sometimes also referred to in this notice as the three "prongs") to deny a waiver in section 209(b)(1)(A)–(C) has been met. EPA may thus deny a waiver, in the context of EPA's adjudicatory review, only if it makes at least one of these three factual findings based on evidence in the record.

The 1970 CAA Amendments strengthened EPA's authority to regulate vehicular emissions of air pollutants, while reaffirming the corresponding breadth of California's ability to regulate those emissions. Congress did so by amending CAA section 202 and recodifying the

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[20] *Central Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151, 1174 (E.D. Cal. 2007) ("The waiver provision of the Clean Air Act recognizes that California has exercised its police power to regulate pollution emissions from motor vehicles since before March 30, 1966; a date that predates. . . the Clean Air Act.").
[21] *See, e.g.*, S. Rep. No. 403, 90th Cong., 1st Sess. 33 (1967) (The waiver of preemption is for California's "unique problems and pioneering efforts."); 113 Cong. Rec. 30950, 32478 ("[T]he State will act as a testing agent for various types of controls and the country as a whole will be the beneficiary of this research.") (Statement of Sen. Murphy); *MEMA I*, 627 F.2d at 1111.

waiver provision as CAA section 209(b), respectively.[22] Congress also established the National Ambient Air Quality Standards (NAAQS) program, under which EPA issues air quality criteria and sets ambient air quality standards for so-called "criteria" pollutants, and states with regions that have levels of pollutants greater than those federal standards must submit state implementation plans, or SIPs, indicating how they plan to attain the NAAQS. These attainment SIPs are often multi-year, comprehensive plans.[23]

With the CAA Amendments of 1977, Congress confirmed that California may consider the protectiveness of its standards "in the aggregate," rather than requiring each California standard to be as or more stringent than its federal counterpart. This codified the flexibility to shape the air pollution control program to meet the particular needs of the State, including by adopting a stronger standard for a specific pollutant where a weaker standard for a second pollutant was necessary due to interactions between control technologies or where California's air quality goals and policy preferences may focus on specific pollutants or objectives.[24] Congress also ratified EPA's interpretation of the waiver provision as providing appropriate

[22] In the 1970 CAA Amendments, section 202(a) was divided into section 202(a)(1) and section 202(a)(2). Section 202(a)(1) included the directive for the Administrator to "prescribe standards applicable to emissions of any air pollutant…which in his judgement cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The previous lead time requirement in section 202(a) was moved to section 202(a)(2) and included the directive that any regulation prescribed under 202(a)(1) "shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." The 1970 CAA did not change the cross reference to section 202(a) in section 209(b)(1)(C). As described below, the 1977 amendments also did not change the cross reference to section 202(a) in section 209(b)(1)(C) but did expand the flexibility afforded to California under section 209(b).

[23] For example, EPA has approved a revision to California's State Implementation Plan (SIP) to include mobile source regulations such as CARB's LEV III and ZEV regulations from the ACC I program (81 FR 39424 (June 16, 2016)).

[24] 42 U.S.C. 7543(b)(1). *See also* Clean Air Act Amendments of 1977, Pub. L. No. 95–95, § 207, 91 Stat. 685; *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. New York State Dep't of Env't Conservation*, 17 F.3d 521, 525 (2d Cir. 1994).

deference to California's policy goals and consistent with Congress's intent "to permit California to proceed with its own regulatory program" for new motor vehicle emissions.[25]

In addition, the 1977 amendments recognized the serious air pollution problems facing many states in the nation and added an option for such states to address their air pollution problems while protecting the manufacturers from facing more than two motor vehicle emission control programs. The amendments continued to recognize the significance of California's standards to the Nation as a whole with Congress' adoption of a new section 177. CAA section 177 permits other states that meet certain criteria to address their own air pollution problems, and avoid the preemption in CAA section 209(a), by adopting and enforcing California new motor vehicle standards for which a waiver has been granted.[26]

Any state with qualifying SIP provisions may exercise this option and become a "section 177 State" without first seeking approval from EPA. Thus, the 1977 amendments further recognize the important role of state innovation in mobile source air pollution control, both by making it easier for California to obtain waivers (by allowing the State's protectiveness determination to be made "in the aggregate") and by expanding the opportunity (via CAA section 177) for other states to adopt California's standards.

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[25] H.R. Rep. No. 95–294, at 301 (1977).

[26] This provision was intended to continue the balance, carefully drawn in 1967, between states' need to meet increasingly stringent federal air pollution limits and the burden of compliance on auto-manufacturers. *See, e.g.*, H.R. Rep. No. 294, 95th Cong., 1st Sess. 309–10 (1977) ("[S]ection 221 of the bill broadens State authority, so that a State other than California . . . is authorized to adopt and enforce new motor vehicle emission standards which are identical to California's standards. Here again, however, strict limits are applied . . .. This new State authority should not place an undue burden on vehicle manufacturers . . .."); *Motor Vehicle Mfrs. Ass'n v. NYS Dep't of Env't Conservation,* 17 F.3d 521, 527 (2d Cir. 1994) ("Many states, including New York, are in danger of not meeting increasingly stringent federal air pollution limits . . .. It was in an effort to assist those states struggling to meet federal pollution standards that Congress, as noted earlier, directed in 1977 that other states could promulgate regulations requiring vehicles sold in their state to be in compliance with California's emission standards or to 'piggyback' onto California's preemption exemption. This opt-in authority, set forth in § 177 of the Act, 42 U.S.C. 7507, is carefully circumscribed to avoid placing an undue burden on the automobile manufacturing industry.")

Given the statutory language, legislative history, and judicial precedent, EPA has consistently interpreted CAA section 209(b) as requiring EPA to grant a waiver unless EPA or opponents of a waiver can demonstrate that one of the criteria for a denial has been met.[27] In this context, since inception, EPA has recognized its limited discretion in reviewing California waiver requests. Therefore, EPA's role upon receiving a request for waiver of preemption from California is only to determine whether it is appropriate to make any of the three factual findings specified by the Act. If EPA cannot make at least one of the three findings, then the waiver must be granted. The three waiver criteria are properly seen as criteria for a denial. This reversal of the normal statutory structure embodies and is consistent with the congressional intent of providing deference to California to maintain and further develop its own new motor vehicle emissions program.

Additionally, in previous waiver decisions, EPA has noted that CAA section 209(b)(1) specifies particular and limited grounds for rejecting a waiver and has therefore limited its review to those grounds.[28] This has led EPA to reject arguments that are not specified in the statute as grounds for denying a waiver:

> The law makes it clear that the waiver requests cannot be denied unless the specific findings designated in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California.

[27] *MEMA I*, 627 F.2dat 1120–21 ("The language of the statute and its legislative history indicate that California's regulations, and California's determination that they comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them."); *MEMA II,* 142 F.3d at 462–63. ("[S]ection 209(b) sets forth the only waiver standards with which California must comply. . .. If EPA concludes that California's standards pass this test, it is obligated to approve California's waiver application.").

[28] *See, e.g.*, 78 FR 2112 (January 9, 2013); 87 FR 14332 (March 14, 2022) (SAFE 1 Reconsideration Decision).

> Thus, my consideration of all the evidence submitted concerning a waiver decision is circumscribed by its relevance to those questions that I may consider under section 209(b).[29]

2. Deference to California

Apart from adjudicating the statutory waiver criteria, the Administrator lacks the authority to generally review the State's program based on his own notions of reasonableness or the public interest.[30] CAA section 209(b) directs the Administrator to waive application of section 209(a) and then provides specified findings under which the Administrator is directed to not grant the waiver. EPA has consistently noted that the text, structure, and history of the California waiver provision clearly indicate congressional intent to leave decisions on "ambiguous and controversial matters of public policy" to California's judgment.[31] Congress did so to ensure that the Federal government did not second-guess the wisdom of state policy.[32] In an early waiver decision, EPA highlighted this deference:

> It is worth noting … I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control technology where that is needed by compelling the industry to "catch up" to some degree with newly promulgated standards. Such an approach … may be attended with costs, in the shape of reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of these risks and costs against the potential

[29] 78 FR at 2115 (footnote omitted).
[30] *MEMA I,* 627 F.2 at 1124 n.56; *see also* at 1119 ("The EPA Administrator does not have authority to regulate either the motor vehicle manufacturing industry or the State of California under a broad charter to advance the public interest.... As the Administrator has consistently held since first vested with the waiver authority, … his inquiry under section 209 is modest in scope. He has no "broad and impressive" authority to modify California regulations."); *id.* at 1124 ("whether the [CARB] regulations were themselves arbitrary and capricious ... is not a question for the Administrator or this court").
[31] 40 FR 23102, 23103–04 (May 28, 1975); *see also* LEV I, 58 FR 4166 (January 13, 1993), Decision Document at 64.
[32] *Ford,* 606 F.2d at 1302. ("The Administrator is charged with undertaking a single review in which he applies the deferential standards set forth in Section 209(b) to California and either grants or denies a waiver without exploring the consequences of nationwide use of the California standards or otherwise stepping beyond the responsibilities delineated by Congress.").

> benefits from reduced emissions is a central policy decision for any regulatory agency under the statutory scheme outlined above, I believe I am required to give very substantial deference to California's judgments on this score.[33]

This view is further supported by the House Committee Report accompanying the 1977 amendments to the Act. The Report explained that, although Congress had the opportunity to restrict the waiver provision, it instead elected to expand California's flexibility to adopt a complete program of motor vehicle emission controls. According to the Report, the 1977 amendments were intended to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, *i.e.*, to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare.[34]

3. Standard and Burden of Proof

In *Motor and Equipment Manufacturers' Association, Inc. v. EPA*, 627 F.2d. 1095, 1122 n.54 (D.C. Cir. 1979) (*MEMA I*), the U.S. Court of Appeals for the District of Columbia stated, with regard to the standard and burden of proof, that the Administrator's role in a CAA section 209 proceeding is to

> consider all evidence that passes the threshold test of materiality and . . . thereafter assess such material evidence against a standard of proof to determine whether the parties favoring a denial of the waiver have shown that the factual circumstances exist in which Congress intended a denial of the waiver.[35]

The court in *MEMA I* considered the standards of proof under CAA section 209 for the two factual findings necessary to grant a waiver for an "accompanying enforcement procedure" (as opposed to the standards themselves): (1) Protectiveness in the aggregate and (2) consistency with CAA section 202(a) findings. The court instructed that "the standard of proof must take

[33] 40 FR 23102, 23103–04 (May 28, 1975); LEV I, 58 FR 4166 (January 13, 1993), Decision Document at 64.
[34] H.R. Rep. No 294, 95 Cong., 1st Sess. 301–02 (1977) (cited in *MEMA I*).
[35] *MEMA I*, 627 F.2d at 1122.

account of the nature of the risk of error involved in any given decision, and it therefore varies with the finding involved. We need not decide how this standard operates in every waiver decision."[36]

With respect to California's protectiveness determination, the court upheld the Administrator's position that to deny a waiver there must be clear and compelling evidence to show that the proposed procedures undermine the protectiveness of California's standards.[37] The court noted that this standard of proof also accords with the congressional intent to provide California with the broadest possible discretion in setting regulations it finds protective of the public health and welfare.[38]

With respect to the consistency finding, the court did not articulate a standard of proof applicable to all proceedings but found that the opponents of the waiver were unable to meet their burden of proof even if the standard were a mere preponderance of the evidence. Although *MEMA I* did not explicitly consider the standards of proof under CAA section 209 concerning a waiver request for "standards," as compared to accompanying enforcement procedures, there is nothing in the opinion to suggest that the court's analysis would not apply with equal force to such determinations. EPA's past waiver decisions have consistently made clear that: "[E]ven in the two areas concededly reserved for Federal judgment by this legislation—the existence of compelling and extraordinary conditions and whether the standards are technologically feasible—Congress intended that the standard of EPA review of the State decision to be a narrow one."[39]

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[36] *Id*.
[37] *Id.* at 1122 & n.54 (citing H.R. Rep. 294, 95th Cong. 1st Sess. 302 (1977)).
[38] *Id.* at 1122.
[39] *See, e.g.,* 40 FR 21102–03 (May 28, 1975).

As noted earlier, the burden of proof in a waiver proceeding is on the opponents of the waiver. This is clear from the statutory language stating that EPA "shall . . . waive" preemption unless one of three statutory factors is met. This reading was upheld by the D.C. Circuit in *MEMA I*, which found that:

> The language of the statute and its legislative history indicate that California's regulations, and California's determinations that they must comply with the statute, when presented to the Administrator are presumed to satisfy the waiver requirements and that the burden of proving otherwise is on whoever attacks them. California must present its regulations and findings at the hearing and thereafter the parties opposing the waiver request bear the burden of persuading the Administrator that the waiver request should be denied.[40]

The Administrator's burden, on the other hand, is to make a reasonable evaluation of the information in the record in coming to the waiver decision. As the court in *MEMA I* stated:

> The Administrator is not entitled to ignore the evidence adduced at the hearing. He must consider all evidence that passes the threshold test of materiality and he must thereafter assess such material evidence against a standard of proof to determine whether the parties favoring a denial of the waiver have shown that the factual circumstances exist in which Congress intended denial of the waiver.[41]

4. Comments on Principles Governing EPA's Waiver Review

a. Scope of the Waiver Proceeding

One commenter pointed to *Michigan v. EPA* for application of arbitrary and capricious review to an agency rule, in that the "result must be logical and rational" and rest "on a

[40] *MEMA I,* 627 F.2d at 1121.

[41] *Id.* at 1122-1123. The court further provided that "Here, too, if the Administrator ignores evidence demonstrating that the waiver should not be granted, or if he seeks to overcome that evidence with unsupported assertions of his own, he runs the risk of having his waiver decision set aside as arbitrary and capricious. His "burden" is the burden of acting reasonably." The court, in footnote 56 to the quote here, noted that "Here the Administrator has no broad mandate to assure that California's emissions control program conforms to the Administrator's perceptions of the public interest. Absent the contingency that he is able to make contrary findings, his role with respect to the California program is largely ministerial."

consideration of the relevant factors."[42] They said that it would not be rational or "'appropriate' . . . to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits."[43] The commenter also suggested that it would be arbitrary and capricious to ignore harm to health and welfare caused by deprivations in income or other burdens that they claim would arise from the grant of a waiver.[44] By contrast, one commenter noted that findings are only required to deny California's request, not to support approval of the waiver due to the presumption under CAA section 209(b)(1).[45]

EPA agrees that CAA section 209(b) establishes a default outcome of approval of the State's waiver request unless EPA finds otherwise on one of the three prongs.[46] EPA's review is limited by the scope of each prong. For the first prong, the statute directs EPA to conduct arbitrary and capricious review of California's protectiveness determination. The statute also directs that the protectiveness determination be made "in the aggregate," providing wide flexibility to the State in developing its standards.[47] The second and third prongs—need for such standards to meet compelling and extraordinary conditions and consistency with CAA section 202(a), respectively—do not contain language regarding arbitrary and capricious review. Nonetheless, the scope of EPA's consideration under these prongs is also limited and does not encompass a general reasonableness review of the State's program: although it may be

[42] Center for Environmental Accountability (CEA), EPA-HQ-OAR-2023-0292-0170, p.27 (citing *Michigan v. EPA*, 576 U.S. 743, 750 (2015) (internal quotation marks omitted)).
[43] *Id.* (citing *Michigan*, 576 U.S. at 752).
[44] *Id.*
[45] States and Cities.
[46] 42 U.S.C. § 7543(b)(1) (establishing that "[t]he Administrator *shall* . . . *waive*" preemption of California's new motor vehicle standards, except "[n]o such waiver shall be granted if the Administrator finds" the conditions in one of the three prongs is met).
[47] Note that CAA section 209(b)(2) provides that, where a California "standard is at least as stringent as the comparable applicable Federal standard," that standard is "deemed to be at least as protective of health and welfare as such Federal standards . . .." This provision simplifies the protectiveness determination, short of the wider "in the aggregate" analysis.

appropriate for EPA, for instance, to consider the compliance costs of the rule in evaluating the third prong, EPA cannot further consider indirect social costs or other policy considerations not provided by the three prongs. We further discuss the scope of review under each prong in their respective sections below. EPA has addressed those comments received that were outside the limited scope of our review in a Supplemental Response to Comments (SRTC) that has been included in the docket for this waiver decision.[48] This SRTC document is incorporated by reference in this Notice.

b. Deference to California

Some commenters took issue with EPA's application of CAA section 209(b) as requiring respect for California's policy choices. Commenters stated that EPA has wrongly adopted over the decades a position of "hyper-deference" to California's policy choices.[49] They took issue with the "broadest possible discretion" language from *MEMA I*, which they stated was in the context of a House Report describing CAA section 207's regulatory format and which should not be read to reach further than the consideration of in-use vehicle maintenance. One commenter dismissed the D.C. Circuit's rulings in *MEMA I* as relying on "speculative inferences from legislative history." They argued that strict textual reliance is required when determining whether to grant a waiver.

On the other hand, a commenter noted that CAA section 209(b) prescribes a narrow role for EPA, demanding "the broadest possible deference to California's regulatory choices in adopting motor vehicle emission standards."[50] They described how Congress recognized, over 50

[48] EPA SRTC, EPA-HQ-OAR-2023-0292.
[49] Center for Environmental Accountability (CEA), EPA-HQ-OAR-2023-0292-0170; Illinois Corn Growers Association, et al. (Illinois Corn Growers), EPA-HQ-OAR-2023-0292-0185.
[50] Environmental and Public Health Organizations, EPA-HQ-OAR-2023-0292-0234 (Environmental and Public Health Organizations).

years ago, that "California's serious air pollution problems and the State's established leadership and expertise in vehicle emission control" is reflected in the deliberate choices made by Congress in the plain language of section 209(b).

EPA's deference to California on policy choices—meaning the discretionary path by which California may achieve its needed emissions reductions consistent with the three statutory waiver criteria—results from the direct application of clear statutory terms. Because EPA "shall . . .waive application" of CAA section 209(a) to California absent a contrary finding according to the narrow considerations directed in section 209(b), California is allowed wide latitude to choose its path. That said, this discretion is not infinite: EPA's review under the three prongs is substantive, and EPA applies its technical expertise in assessing the record evidence related to each prong. Moreover, EPA does not defer to California's interpretation of the Act, which provides the boundaries of how EPA adjudicates the three prongs. Generally, EPA conducts its review in reliance on the text of the statute, informed by decades of regulatory practice and judicial interpretation.

While EPA's approach is based on the plain text of the Act, we also note that the commenters' criticism of the "broadest possible discretion" language cited by the court in *MEMA I* as being a stray piece of legislative history is misplaced. That language arises from the House Committee Report of the 1977 Clean Air Act Amendments, which revised the waiver provision.[51]

[51] *MEMA I,* 627 F.2d at 1110. ("The Committee amendment is intended to ratify and strengthen the California waiver provision and to affirm the underlying intent of that provision, i.e., to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare." (quoting H.R.Rep. No. 294, 95th Cong., 1st Sess. 301-02 (1977), U.S. Code Cong. & Admin. News 1977, p.1380 (emphasis added))).

Committee reports are typically the most persuasive forms of legislative history,[52] and moreover, the *MEMA I* court characterized the supporting legislative history on this point as "overwhelming."[53] In any case, the legislative history is supportive of the plain meaning of the statute itself.

c. Burden of Proof

EPA received multiple comments concerning the burden of proof required for EPA's finding in each of the three prongs, and whether waiver opponents are required to satisfy this burden. Some commenters claimed that EPA must make an independent finding, without regard to whether opponents to the grant of a waiver have met any burden or made any showing at all. One commenter asserted that because EPA must issue its own findings, and though there may be some level of deference to California through arbitrary and capricious review of CARB's protectiveness finding, there is no statutory presumption in favor of California. Similarly, a commenter stated that the only "actor" in section 209(b)(1) is EPA.[54]

[52] See *Garcia v. United States*, 469 U. S. 70, 76 (1984) ("In surveying legislative history we have repeatedly stated that the authoritative source for finding the Legislature's intent lies in the Committee Reports on the bill, which 'represen[t] the considered and collective understanding of those Congressmen involved in drafting and studying proposed legislation'" (quoting *Zuber v. Allen*, 396 U. S. 168, 186 (1969))).

[53] *MEMA I,* 627 F.2d at1108 n.22. ("As we show, there are overwhelming indications in the legislative history that Congress intended California to enjoy the broadest possible discretion in selecting a complete program of emissions control, and not the slightest indication that it intended section 207 to qualify that discretion.").

[54] The commenter also pointed to *Nat. Res. Def. Counc. v. EPA*, in which the court found that "EPA must, at least" 'conduc[t] an analysis regarding every assumption used by' California and 'independently f[ind] that each factor and assumption [is] scientifically defensible.'" Illinois Corn Growers p.7 (citing 16 F.3d 1395, 1401–02 (4th Cir. 1993) (considering approval of a state's water quality standards)). EPA notes that the commenter's selective quote of what EPA did in that case was not the court's holding. Rather, the court found only that EPA had a "duty . . . to ensure that the underlying criteria" for the water quality standard at issue was "scientifically defensible . . .." *Nat. Res. Def. Counc.*, 16 F.3d at 1402. More important to this waiver action, EPA disagrees that this case controls or otherwise informs its review in the CAA section 209(b) waiver setting. The statutory language in section 209(b) sets forth a default condition of requiring waiver approval unless EPA finds otherwise according to at least one of the three specified criteria in section 209(b)(1) (the three waiver prongs). The case referenced here proceeded under the Clean Water Act, and did not address the different text, structure, legislative history and the specified criteria and burden established in CAA section 209(b).

EPA conducts its review of CARB's waiver request according to the text of CAA section 209(b)(1). To do so, EPA considers the record before it, including CARB's application and supporting data, comments submitted by interested parties, and EPA's evaluation of the above. To be clear, EPA does not go on to produce a new protectiveness determination separate and apart from CARB's determination. EPA's role in this action is adjudicatory only; it evaluates CARB's protectiveness determination under the arbitrary and capricious standard. EPA must grant the waiver unless it finds that CARB's determination is arbitrary and capricious, or finds, by a preponderance of the evidence, that CARB's application is ineligible for a waiver under the second or third prongs. CAA section 209(b) does not require EPA to make a finding explicitly supporting a waiver; rather, EPA may deny the waiver only by finding in the negative on one or more of the statutory criteria. The burden to prove that one of the statutory criteria is met is on the opponents of the waiver. The statutory language plainly establishes a presumption in favor of CARB's request by establishing a presumptive outcome of approval absent evidence that a finding can be made on one or more of the three prongs.[55]

We do not agree that EPA is the only "actor" in section 209(b)(1). The statute plainly states that California will make the protectiveness determination in the first instance. In any event, EPA's action is an adjudication of CARB's waiver request pursuant to the statutory waiver criteria, not a standalone Federal regulatory action. EPA disagrees that California and

[55] As succinctly summarized by the court in *Central Valley Chrysler-Jeep, Inc. v. Goldstene*: "Although regulations proposed by California pursuant to section 209 must broadly advance EPA's primary purpose to protect public health and welfare and must be at least as stringent as the corresponding EPA regulations in the aggregate, the proposed California regulations need not establish perfect compliance with all provisions of the Clean Air Act. 529 F. Supp. 2d 1151, 1171." In creating the waiver provisions of section 209, Congress determined that California should have the "broadest possible discretion in selecting the best means to protect the health of its citizens." *Id.* "In short, Congress consciously chose to permit California to blaze its own trail with a minimum of federal oversight." *Id.* (quoting *Ford Motor Co. v. EPA,* 606 F.2d 1293, 1297 (D.C. Cir. 1979)). 529 F. Supp. 2d 1151, 1171 (E.D. Cal. 2007) (cleaned up).

commenters play no role in EPA's decision; to the contrary, participation by California and other commenters inform EPA's role as an independent adjudicator. In summary, the initial burden is on CARB to develop a record for its protectiveness determination that demonstrates that it is not arbitrary and capricious, but the burden turns to opponents of the waiver during EPA's adjudication to show why CARB's determination is arbitrary and capricious or why the basis in the second or third prongs is met to deny the waiver.

Some commenters claimed that the opponent to a waiver decision has the burden to disprove presumptive entitlement to the waiver. They cited the D.C. Circuit's decision in *MEMA I*, stating that "California's regulations, and California's determination that they comply with the statute . . . are presumed to satisfy the waiver requirements," and "the burden of proving otherwise is on whoever attacks them." 627 F.2d at 1121. The commenters claimed that the waiver must be granted unless EPA determines that one of the three CAA section 209(b) conditions is not met, and that it cannot consider any other criteria.

In line with the statutory language that creates a presumption in favor of granting the waiver, and consistent with the Agency's longstanding position, EPA agrees with commenters' assertion that the opponents to the issuance of a waiver by EPA under CAA section 209(b) bears the burden to disprove the State's entitlement to it being granted.[56,57] Unless opponents can show one of the statutory waiver criteria are met, EPA must grant the waiver.

d. Standard of Proof

[56] See *MEMA I*, 627 F.2d at 1121-23 & nn.52, 56.

[57] This is also analogous to judicial "arbitrary and capricious" cases reviewing agency action, wherein the court will not disturb EPA's determination absent a sufficient showing by the challenger. *See, e.g.*, *City of Olmsted Falls v. FAA*, 292 F.3d 261, 271 (D.C. Cir. 2002) ("even assuming [EPA] made missteps the burden is on petitioners to demonstrate that [EPA's] ultimate conclusions are unreasonable") (citing *National Petrochemical & Refiners Ass'n v. EPA,* 287 F.3d 1130, 1146 (D.C. Cir 2002) (cleaned up)).

A commenter claimed that the proper standard throughout the waiver proceeding is "preponderance of the evidence," rather than the "clear and compelling evidence" standard identified in *MEMA I*, which the commenter dismissed as based only on legislative history rather than a standard found in the statutory text. Other commenters noted that EPA must apply "arbitrary and capricious" review to CARB's protectiveness determination, as expressed in CAA section 209(b)(1)(A), even if it finds each California standard to be at least as stringent as the corresponding federal standard under section 209(b)(2).[58] One of these commenters stated that although the latter paragraph was added in 1977, it was intended only to make EPA's review a "slam dunk" when every California standard is more stringent, rather than to nullify the application of "arbitrary and capricious" review to CARB's protectiveness finding.[59]

As discussed above, EPA applies arbitrary and capricious review to CARB's protectiveness determination as required by CAA section 209(b)(1)(A). EPA would deem CARB's determination arbitrary and capricious if there were clear and compelling evidence showing that California's standards, in the aggregate, were not as protective as applicable Federal standards.[60] We do not agree with the commenter that the arbitrary and capricious review contemplated by section 209(b)(1)(A) equates to a de novo review to determine whether CARB's finding is supported by a preponderance of the evidence. That view contradicts the analysis in

[58] *E.g.*, CEA.

[59] The commenter took issue with EPA's previous characterization, from the 2022 Restoration action, of section 209(b)(2) as allowing California standards "to be deemed to be as protective of public health and welfare as such federal standards *for purposes of section 209(b)(1)(A)*," *id.* at 28 (emphasis original), rather than tracking the text of 209(b)(2), which instead says "for purposes of paragraph (1)" EPA is not reopening any prior action and therefore finds the commenter's specific concern untimely. Nonetheless, EPA understands the arbitrary and capricious review of CARB's protectiveness determination to apply in any waiver proceeding, regardless of the application of section 209(b)(2). The latter section provides an alternate means for CARB's standards to meet their protectiveness determination requirements.

[60] *MEMA I*, 627 F.2d at 1122 & n.54 (citing H.R. Rep. 294, 95th Cong. 1st Sess. 302 (1977)).

MEMA I and misapprehends basic principles of administrative law.[61] EPA applies the preponderance standard to evidence presented regarding the second and third prongs, as that is the default standard of proof in both civil litigation and administrative agency adjudications absent a statutory directive to us a different standard.

More generally, even were we to apply a de novo preponderance of evidence standard as urged by some waiver opponents, we would reach the same conclusions. This is because, as we explain in later sections of this Decision Document, the administrative record strongly supports granting the waiver. CARB's waiver request and supporting documents, including the State's rulemaking record, thoroughly and persuasively establish that the State's vehicle standards are more protective than the Federal standards in the aggregate, and more generally preclude an adverse finding on any of the three prongs. While waiver opponents have raised diverse objections, many of these are beyond the scope of what can be considered under the three prongs. Commenters' objections that are within scope are often skeletal in nature, based on speculative inferences, and lacking in supporting technical data and analysis specific to the waiver proceeding. In instances where opponents have submitted supporting specific data and analysis, EPA has carefully evaluated the evidence and in many cases has identified significant technical and scientific defects that render such evidence unpersuasive. EPA has determined that in every case the evidence in favor of granting the waiver far outweighs the evidence against doing so and would thus find in favor of granting the waiver even applying a preponderance of evidence test de novo. We explain our assessment of the evidence on each issue in the subsequent sections of this Decision Document.

[61] *See, e.g.*, *Izaak Walton League v. Marsh*, 210 U.S. App. D.C. 233, 655 F.2d 346, 371 (1981) (rejecting appellant's argument that "arbitrary and capricious review" equates to "resolv[ing] any disputed factual issues de novo and by a preponderance of the evidence" as an argument that is "clearly incorrect").

e. Other Comments on the Principles Governing EPA's Review

A commenter asserted that EPA's reliance on *Chevron*-infused precedents is precarious in light of the Supreme Court's grant of certiorari in *Loper Bright Enterprises, Inc. v. Raimondo* (*Loper Bright*). EPA recognizes that *Loper Bright* overruled the *Chevron* deference framework. In doing so, the Court stated that it did "not call into question prior cases that relied on the *Chevron* framework."[62] To the extent that EPA cites to any cases decided under *Chevron*, that reliance remains valid. In any case, as we explain throughout, EPA's interpretations are based on the best interpretation of the Act—not *Chevron* deference.

Further, most of EPA's determinations in this and other waivers are factual and technical findings that remain subject to arbitrary and capricious review and are not implicated by *Loper Bright*. CAA section 209(b) designates EPA to administer the waiver program and to factually assess CARB's regulations within the three criteria specified. The statute mandates that the Administrator grant the waiver, except that "[n]o such waiver shall be granted if the Administrator finds that" one of three criteria are met. The authority to make these findings is thus vested in the Administrator. These findings relate to factual and technical matters and entail the statutorily mandated exercise of the Administrator's judgment. Under *Loper Bright*, such factual findings remain subject to "deferential" arbitrary and capricious review.[63] *Loper Bright* does not overturn or modify the myriad decisions that have long applied deference to technically based factual determinations made by expert agencies.

Loper Bright also recognized the respect owed to Executive Branch interpretations that have the power to persuade.[64] EPA's interpretations warrant respect account of EPA's specialized

[62] *Loper Bright*, 144 S. Ct. 2244, 2273 (2024).
[63] *Id.* at 2261.
[64] *Id.* at 2248-49, 2259 (citing *Skidmore v. Swift & Co*., 323 U. S. 134 (1944) (*Skidmore)*).

experience, relevant technical expertise, and thorough consideration; as well as the interpretations' contemporaneity and consistency over time, and their prior affirmation by the courts and Congress.

EPA possesses specialized experience and relevant technical expertise. The Administrator has developed a considerable "body of experience and informed judgment"[65] in making relevant technical and scientific determinations under the waiver criteria, including those regarding California's air quality, topography, photochemistry, and climate; comparing the stringency of the Federal and California standards and their relative protectiveness of the public health and welfare; evaluating the availability, costs, and efficacy of motor vehicle pollution control technologies; evaluating the interactions between different pollution control technologies that form the bases of the State's motor vehicle program; ensuring the consistency of Federal and California certification procedures; and interpreting the Act to ensure a legally coherent and practically workable statutory scheme.[66] EPA has made these kinds of judgments in over 75 waiver adjudications over 55 years.

The Administrator's evaluation and interpretations are supported by EPA's work over several decades. EPA has extensive scientific and technical expertise on air pollution and pollution control technologies; as well as policy, regulatory, and legal matters relating to the waiver program and the programs for Federal motor vehicle emission standards, compliance, and enforcement.[67] Over the last half-century, EPA's implementation of Title II has produced one of

[65] *Skidmore*, 323 U.S. at 164.
[66] *See also* generally EPA, *Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles Response to Comments* 296-97 (Mar. 2024) (describing the technical, scientific, and policy judgments that EPA routinely makes in administering its motor vehicle emissions program).
[67] *See* EPA, *Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles Regulatory Impacts Analysis 2-1* (Mar. 2024) (describing EPA's technical expertise in motor vehicle emission control).

the most successful regulatory programs in the nation—spurring the development and commercialization of motor vehicles which are over 99% cleaner for key dangerous air pollutants than those produced in the 1970s while remaining reliable and vital instruments of transportation and commerce.[68] Moreover, EPA's work extends beyond administrative and regulatory actions to all manner of topics related to clean air, including the disbursement of grants to public and private entities to further their air pollution control efforts; collaborative engagement with other leading government, academic, non-profit, and industry experts; representing the United States at international fora related to air pollution; and conducting original research at its world class National Vehicle and Fuel Emissions Laboratory (NVFEL), which has yielded hundreds of peer-reviewed publications and over 100 patents on cutting-edge vehicle and fuel emissions technologies. EPA's administration of its entire mobile sources program, including its waiver policies and interpretations, are thus the product of highly "specialized experience and broader investigations and information,"[69] reflecting "the Agency's expertise in a given area, its knowledge gained through practical experience, and its familiarity with the interpretive demands of administrative need."[70]

The Administrator's waiver adjudications also reflect thorough consideration. Final waiver adjudicatory orders are not mere advisory opinions, but have the force of law, directly waiving statutory preemption to allow California to enforce its state motor vehicle emissions program. Waiver actions also serve as the prerequisite for certain other States to exercise their independent decision to enforce California's program under CAA section 177. Waiver decisions

[68] *See* EPA, *Accomplishments and Successes of Reducing Air Pollution from Transportation in the United States* webpage, https://www.epa.gov/transportation-air-pollution-and-climate-change/accomplishments-and-successes-reducing-air (last accessed October 19, 2024).
[69] *Skidmore*, 323 U.S. at 139.
[70] *Cty. of Maui v. Haw. Wildlife Fund*, 590 U.S. 165, 180 (2020).

are accompanied by reasoned opinions, fully detailing EPA's statutory findings, relevant factual information, methodologies used in analyzing such information, and legal and policy rationales.

And while waiver adjudications are not rulemakings, the Administrator affords the public not only with notice and comment procedures analogous to rulemakings, but also provides a public hearing for the presentation of oral testimony. Thus, in adjudicating waivers, the Administrator not only evaluates California's submission, but also thoroughly considers the testimony of witnesses at the public hearing and the public comments, applies his own expertise in the underlying technical matters and the sound administration of the Act, and renders judgments as to weight of the evidence in the whole record. In the instant matter, EPA heard testimony from representatives of the automobile industry, the fuels industry, labor groups, environmental and public health groups, environmental justice groups, State and local governments, and private citizens. EPA also received nearly 32,000 written comments, including from all the above stakeholder groups, and these comments explore in depth the legal and technical reasons for granting or denying the waiver. Thus, the instant proceeding has been subject to significant public scrutiny and deliberation, and the Administrator's final decision has benefited from a thorough consideration of this voluminous record.

Turning to contemporaneity and consistency, EPA has adjudicated nearly 75 waiver actions over 55 years and 11 Presidential administrations, with the first final order issued in 1968, roughly contemporaneous with the enactment of the original waiver provision in the Air Quality Act of 1967.[71] EPA also issued orders roughly contemporaneous with the enactment of

[71] 33 Fed. Reg. 10160, 10160 (July 16, 1968); *see also, e.g.*, 36 Fed. Reg. 17458 (Aug. 31, 1971); 40 FR 21102 (May 28, 1975); 40 Fed. Reg. 23102 (May 28, 1975); 41 Fed. Reg. 44209 (Oct. 7, 1976).

the 1977 Amendments to the waiver provision.[72] Over this time, many key policy and legal interpretations have generally remained consistent—with discrete exceptions of limited relevance to this proceeding.[73] Moreover, as we explain in our responses to comments on individual legal issues, many interpretive concerns raised by commenters were addressed in early final actions interpreting the Act. Over time, consistent agency interpretations have promoted rule of law by treating similar cases similarly, guarded against arbitrary and capricious action, and promoted regulatory certainty. This consistency has also safeguarded the reliance interests of interested parties—including California, which has continued to develop and administer a robust motor vehicle emissions program; other States that also rely on the significant emissions reductions achieved by California's program, particularly those States who have adopted California's standards under CAA section 177 to achieve their own air quality goals and meet Federal Title I requirements; regulated manufacturers of motor vehicles and engines who have long become accustomed to developing products to successfully comply with the dual Federal-California regulatory scheme; and other entities in the vehicle supply chain, such as manufacturers of emissions control parts and vehicle dealers.

[72] *See, e.g.*, 43 Fed. Reg. 25729 (June 14, 1978). See generally EPA, Vehicle Emissions California Waivers and Authorizations, https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations (collecting past waiver actions and their Federal Register citations). To the extent that any interpretations were announced later in time, the lack of contemporaneity does not deprive EPA's longstanding interpretations of respect. Indeed, *Skidmore* itself does not even cite contemporaneity as a factor. *See also, e.g.*, *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 487 (2004) (according respect to the EPA's "interpretation of longstanding duration").

[73] An exception is where EPA twice deviated briefly—and erroneously—from its traditional interpretation of one aspect of the second prong as it relates to the State's need for GHG standards. This issue is of limited relevance here since California is not seeking a waiver of any standalone GHG program. The ZEV program does require certain vehicles to have zero emissions for a range of pollutants, including criteria pollutants and GHGs, and the State's need under the second prong can be justified entirely based on the criteria pollution aspects. We also continue to believe that our longstanding, traditional interpretation of the second prong, where we evaluate the State's need for its entire motor vehicle program, remains correct. We further discuss this issue in Section III.B.

Finally, the persuasive power of EPA's interpretations is reflected in their repeated confirmation by the courts and Congress. As explained throughout, many key interpretations underlying EPA's approach were upheld by the D.C. Circuit in its seminal 1979 *MEMA I* decision, a pre-*Chevron* decision where the Court generally found EPA's various interpretations to be well supported by the text, context, structure, purpose, and history of the statute.[74] Many of EPA's interpretations have also been ratified by Congress. "Congress is presumed to be aware of an administrative or judicial interpretation of a statute and to adopt that interpretation when it re-enacts a statute without change."[75] When Congress amended CAA section 209 in 1977, its stated intent was to "ratify and strengthen" the provision and "affirm [its] underlying intent … to afford California the broadest possible discretion in selecting the best means to protect the health of its citizens and the public welfare."[76] Congress also stated its approval that EPA "has liberally construed the waiver provision so as to permit California to proceed with its own regulatory program."[77] Congress ratified the waiver provision (and EPA's application thereof) again in 1990, re-enacting CAA section 209(b)'s language almost exactly to provide a waiver for California regulation of nonroad vehicles and engines in CAA section 209(e). In section 209(e), Congress further specified that "[t]he Administrator shall issue regulations to implement this subsection." In promulgating regulations pursuant to this express statutory directive, EPA interpreted the analogous waiver criteria in two sections in the same manner, further solidifying

[74] *MEMA I*; *see also*, e.g., *MEMA II*; *Ford*. While the *MEMA I* Court did briefly discuss deference and respect in reciting the then-prevailing standard of review, it preceded *Chevron* and thus did not rely on *Chevron* deference. In any case, the court persuasively supported each of its holdings by its own statutory analysis. The *MEMA I* case has been cited extensively by later courts, including the above-noted D.C. Circuit cases as well as cases in other circuits. *See, e.g.*, *Rocky Mountain Farmers Union v. Corey*, 730 F.3d 1070 (9th Cir. 2013); *Motor Vehicle Mfrs. Ass'n v. N.Y. State Dep't of Envtl. Conservation*, 17 F.3d 521 (2d Cir. 1994) (*MVMA*).
[75] *Forest Grove Sch. Dist. v. T. A*., 557 U.S. 230, 239-40 (2009).
[76] H.R. Rep. No. 95-294 at 301-02; *see* 123 Cong. Rec. 27071 (1977).
[77] H.R. Rep. No. 95-294 at 301-02.

EPA's longstanding interpretations.[78] Discrete aspects of EPA's interpretation, moreover, have been further ratified by Congress in other provisions.[79]

III. Evaluation of CARB's LEV IV and ZEV Amendments under Section 209(b)(1)

A. First Waiver Criterion: Is California's Protectiveness Determination Arbitrary and Capricious?

We now turn to California's protectiveness determination submitted in support of its request for waiver of preemption for the ACC II regulations. As explained above, CAA section 209(b)(1)(A) requires EPA to grant a waiver unless the Administrator finds that California's determination—that its standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards—is arbitrary and capricious. The preceding section of this Decision Document explains that this standard calls for a deferential review of the State's determination and places the burden on parties opposing the waiver to show that the determination is flawed.[80]

1. EPA's Traditional Interpretation of Section 209(b)(1)(A)

We explain here EPA's consistent and longstanding approach to evaluate the State's protectiveness determination. We first explain how EPA reviews protectiveness through an iterative process that begins by comparing similar State and federal standards and then broadens the comparison as needed so that the aggregate protectiveness of State standards relative to applicable federal standards can be determined. We then explain how the review of a particular State submittal is viewed in context of previous waivers, and we address the scope of impacts

[78] See 59 FR 36969 (July 20, 1994) (determining that "sections 209(b) and (e) are in many respects alike and in those respects should be similarly interpreted").
[79] For example, in Section III.C, we explain that EPA's authority to waive ZEV programs was ratified by CAA sections 243(e) and 246(f)(4), and Inflation Reduction Act section § 60105(g).
[80] *MEMA I*, 627 F.2d at 1121.

considered in EPA's review. We discuss this last topic of scope of the impacts at greater length later in the section where we summarize and respond to comments.

EPA's consideration of CARB's protectiveness determination for the standards submitted, in this case its LEV IV and ZEV regulations, begins by comparing each of these regulations with any comparable EPA standards ("the applicable Federal standards"). Consistent with CAA section 209(b)(2), if each of the State's standards is as stringent as the comparable EPA standards, that is the end of the inquiry and the State's protectiveness finding is affirmed. This is because if each State standard is at least as stringent as the EPA counterpart, then there is no possibility that the submitted standards would have an overall negative effect on relative protectiveness of standards in the aggregate. If, however, following this comparison there remains a question as to any of the State's standards being as stringent as any federal counterpart, EPA then broadens the scope as needed so that the protectiveness of the State standards relative to the Federal standards is considered "in the aggregate." For the ACC II regulations waiver request, the next step in this broadening would entail comparing the protectiveness of CARB's motor vehicle light-duty vehicle standards in the aggregate to the federal light duty motor vehicle emission control program. While the precise methodology turns on the facts of each waiver request, the ultimate touchstone, as set forth in CAA section 209(b)(1), is the relative stringency of the two motor vehicle programs, i.e., a whole program comparison.

In implementing the directive of CAA section 209(b)(1) to consider CARB's determination regarding the protectiveness of the State's standards "in the aggregate," EPA does not limit its review to the standards currently the subject of a request for waiver. That comparison is undertaken within the broader context of the previously waived California program, which relies upon protectiveness determinations that EPA has previously found were not arbitrary and

capricious. Any previously waived standards still in effect are relevant to the protectiveness determination.

In reviewing the State's protectiveness determination, EPA is limited in its consideration to the effect of vehicle emissions on public health and welfare. EPA may not consider, for instance, the effectiveness of the standards compared to other regulatory approaches that may have been available to the State, or policy considerations external to vehicle emissions.[81] The legal foundation for this approach is discussed below in response to commenters who believed the scope of EPA's review should be broader.

As noted previously, when considering whether to grant waivers for accompanying enforcement procedures tied to standards for which a waiver has already been granted, EPA has long held that, under CAA section 209(b)(1)(A)'s first prong, it will only address the question of whether the enforcement procedures are so lax that they threaten the validity of California's previous determination that its standards are as protective of public health and welfare as applicable Federal standards.[82]

2. CARB's Discussion of its Protectiveness Determination

In adopting the ACC II regulations, the CARB Board adopted a Resolution finding that the amendments "will not cause California's motor vehicle emission standards, in the aggregate,

[81] EPA has consistently limited its review in this manner since the early days of the waiver program, stating in an early waiver notice, "[t]he law makes it clear that the waiver requests cannot be denied unless the specific finding designated in the statute can properly be made. The issue of whether a proposed California requirement is likely to result in only marginal improvement in air quality not commensurate with its cost or is otherwise an arguably unwise exercise of regulatory power is not legally pertinent to my decision under section 209, so long as the California requirement is consistent with section 202(a) and is more stringent than applicable Federal requirements in the sense that it may result in some further reduction in air pollution in California." 36 FR 17458 (Aug. 31, 1971).
[82] *MEMA I*, 627 F.2d at 1113 n.36 (The Administrator "explored whether the procedures had a negative effect on the protectiveness of the California standards for which a waiver had already been granted. See 43 FR 32183 (1978), reprinted in J.A. at 56. This inquiry is perfectly consistent with the Administrator's past practice and his position in this court.")

to be less protective of public health and welfare than applicable federal standards."[83] CARB's waiver request also includes a detailed analysis to support this protectiveness finding. The analysis follows the basic approach described above of first comparing State standards to any comparable Federal standards, then broadening the scope of comparison as appropriate. CARB's protectiveness analysis submitted with its waiver request explains that each of the LEV IV standards and accompanying enforcement procedures, including those applicable to light-duty motor vehicles, is more stringent than the corresponding Federal Tier 3 standards that were applicable at the time. It also explains that each of the medium-duty vehicle (MDV) standards and accompanying enforcement procedures is more stringent than corresponding federal standards and associated requirements.[84] Regarding the State's ZEV regulations, CARB notes that the ZEV standards and ZEV assurance measures "are clearly more stringent than any corresponding federal requirements since there are no federal requirements for [ZEVs]."[85] Within the ZEV program context, CARB also notes that where the ZEV assurance measure requirements ensure that ZEVs will permanently displace emissions that would otherwise be generated from fueling and operating conventional vehicles, then such requirements are more stringent than federal requirements.[86] CARB concludes that the emission standards, associated test procedures, and accompanying enforcement procedures established by the ACC II regulations are at least as stringent as corresponding federal requirements under CAA section 209(b)(2). CARB notes that

[83] CARB Board Resolution 22-12 at p.20, EPA-HQ-OAR-2023-0292-0026.
[84] Waiver Request Support Document pp.30–34. CARB notes that the LEV IV standards preclude manufacturers from including ZEVs within their vehicle fleet-average calculations, thus requiring all vehicles powered by internal combustion engines to continue to reduce their emissions to comply given that ZEVs will not be able to offset their emissions. At the time of CARB's adoption of ACC II, it also noted that other requirements related to light-duty vehicles not revised as part of ACC II (*e.g.*, evaporative emission standards, on-board diagnostic requirements) are at least as stringent as applicable federal emission standards.
[85] Waiver Request Support Document p.34.
[86] *Id.* at 34-35.

these findings also support the conclusion that the ACC II regulations will not cause California's motor vehicle emission standards, in the aggregate, to be less protective of public health and welfare than applicable federal standards under section 209(b)(1).[87]

3. Comments on California's Protectiveness Determination

Commenters expressed different views regarding how EPA should review the State's determination that its standards are, in the aggregate, as protective as applicable Federal standards. Commenters took different views as to whether and how the protectiveness determination should account for revisions to EPA's light and medium duty vehicle emissions rules that had been proposed (but not finalized) at the time CARB submitted its ACC II regulations waiver request. EPA finalized this rule, *Multi-Pollutant Emission Standards for Model Years 2027 and Later Light and Medium Duty Vehicles* ("the LMDV Multipollutant Rule"), after the submittal to EPA of CARB's ACC II regulations waiver request.[88] Regarding the criteria pollutant standards in the ACC II regulations, some commenters believed CARB's protectiveness determination that compared the ACC II regulations to EPA's Tier 3 standards in place at the time of CARB's adoption of ACC II was sufficient. Other commenters stated EPA's LMDV Multipollutant Rule must be considered though these standards were not finalized until after the waiver request for the ACC II regulations was submitted to EPA.

One commenter claimed that because CARB's request dated back to October 14, 2022, CARB's rulemaking findings and the waiver request was outdated and inaccurate in various material respects.[89] This commenter also made a separate argument that because the State's adoption of the ACC II regulatory package predated any waiver of preemption from EPA, the

[87] *Id.* at 35.
[88] 89 FR 27842 (Apr. 18, 2024).
[89] Valero Energy Corporation (Valero), EPA-HQ-OAR-2023-0292-0229, p.4.

findings submitted by CARB in its request for waiver are arbitrary and capricious and unreasonable.

EPA disagrees that CARB's protectiveness determination has been rendered arbitrary and capricious merely by the passage of time, or in this case the subsequent change in the applicable Federal standards. Whether CARB's protectiveness determination is arbitrary and capricious is determined based on an objective analysis of the content of the request. Commenters point to nothing in the statute suggesting a *per se* requirement for the CARB Board itself to update its protectiveness finding based on the passage of time or certain events. Such a suggestion is not only lacking support in the statute but is also highly impractical as it could lead to a submittal and revision loop that could substantially delay or prevent action on a waiver request. We acknowledge that in certain cases, it could potentially be arbitrary and capricious for the State or for EPA to fail to account for significant intervening events. EPA has no need to resolve that issue here, as CARB has in fact updated its analysis through submittal of its Supplemental Comments that examine the relative protectiveness of its ACC II program to the latest Federal program inclusive of the LMDV Multipollutant Rule. EPA has taken these comments into account and based on the entire record has evaluated the protectiveness determination both in regard to the time when the waiver was submitted and as of the date of this final action. This thus addresses the primary concern raised by commenters regarding the currency of the waiver request.[90]

One commenter suggested that the CAA section 209(a) language that no state may "*adopt* or attempt to enforce any standard relating to the control of emissions from new motor vehicles"

[90] California Supplemental Comment.

(emphasis added) means that CARB's adoption of the ACC II regulations prior to receiving a waiver from EPA means the State standards are void and therefore not eligible for waiver. EPA finds this argument to lack credibility; CAA section 209(a) cannot reasonably be read to create an inescapable paradox by requiring the State to obtain a waiver for standards it has not yet adopted. The State must therefore be able to adopt such standards in order to submit them for a waiver request. Upon grant of a waiver preemption is lifted and the standards become enforceable.

Several commenters supported the ACC II regulations because of the health benefits and air quality improvements they are expected to bring, especially in vulnerable communities disproportionately impacted by vehicle emissions.[91] A supportive comment notes that "ACC II also advances environmental justice by reducing disproportionate exposure to vehicle pollution in frontline communities, while providing automakers with additional compliance opportunities that can increase affordable access to ZEVs in overburdened and low-income communities."[92] Other commenters supported CARB's tightening of requirements since the program provides benefits elsewhere in the U.S.[93]

As noted, a number of commenters compared the ACC II regulations to EPA's Tier 3 standards and claimed that each State standard was either directly more stringent than the similar applicable Federal standard, or in the case of the ZEV standards, more stringent because there was no comparable Federal standard. Other commenters went a step further to compare ACC II

[91] New Mexico Environment Department, EPA-HQ-OAR-2023-0292-0112; Southwest Energy Efficiency Project, EPA-HQ-OAR-2023-0292-0113; U.S. Climate Alliance, EPA-HQ-OAR-2023-0292-0116; Natural Resources Defense Council (NRDC), EPA-HQ-OAR-2023-0292-0126; and Environmental and Public Health Organizations.
[92] U.S. Climate Alliance, EPA-HQ-OAR-2023-0292-0116.
[93] Acadia Center, et al., EPA-HQ-OAR-2023-0292-0181; Ceres, et al., EPA-HQ-OAR-2023-0292-0237; Coalition for Clean Affordable Energy (CCAE), EPA-HQ-OAR-2023-0292-0230; Climate Solutions, et al., EPA-HQ-OAR-2023-0292-0180; and NPCA, EPA-HQ-OAR-2023-0292-0186.

regulations to the then-proposed Federal LMDV Multipollutant Rule and concluded ACC II regulations are more protective, particularly when factoring in the criteria pollutant-reducing effect of the CARB ZEV regulations.

Aside from comments that compared the stringency of corresponding CARB and EPA standards, EPA also received comment on the scope of the types of impacts or policy that should be considered in determining whether State standards are, in the aggregate, as protective of "public health and welfare." We summarize and respond to these comments later in this section. Before responding to these comments on the scope of the protectiveness determination, we address the State's determination through EPA's traditional approach that considers only the effects of motor vehicle emissions.

CARB's waiver request, along with Supplemental Comments submitted by CARB specifically addressing EPA's LMDV Multipollutant Rule, as well as the remainder of the record, demonstrate that CARB's ACC II regulations and its new motor vehicle program (including the LEV IV and ZEV requirements) are, in the aggregate, at least as protective as applicable Federal standards.[94] Comments opposed to the waiver neither addressed nor demonstrated that CARB's reasoned comparison of the stringency of ACC II regulations and EPA's Tier 3 standards of protectiveness was arbitrary and capricious. As explained in the following paragraphs, we also conclude that, even if EPA's LMDV Multipollutant Rule is considered, the State's determination of protectiveness is not arbitrary and capricious.

The LMDV Multipollutant Rule does not alter the outcome of EPA's review of the State's protectiveness determination made pursuant to CAA section 209(b)(2). In reaching this

[94] *See* Waiver Request Support Document, pp.28-35; Supplemental Comments, pp.19-24.

conclusion, we considered not only particular pollutants, model years, and vehicle classes covered by CARB's and EPA's regulations, but also how certain standards phase in over time. We also considered how the increasing percentages of ZEVs required in a manufacturers' sales over several years will mean a corresponding decrease in the number of new vehicles that will be required to meet the LEV IV standards. For example, the light-duty vehicle particulate matter standards include EPA's 0.5 mg/mile standard that phases in beginning with model year (MY) 2027 and applies to all light-duty vehicles in MY 2030. However, during the phase-in period the applicable EPA standard for those vehicles not covered by the phase-in is 3.0 mg/mile, whereas CARB's applicable standard (which was not changed in the ACC II regulations) is 1.0 mg/mile and phases in between MYs 2025 and 2028. CARB's phase-in thus occurs earlier and faster, but the more stringent PM standards in the LMDV Multipollutant Rule beginning in MY 2030 entail that at some point in the future the total vehicle PM emission reductions from the LMDV Multipollutant Rule will surpass what would be achieved from the CARB PM standard. This comparison is further complicated by the fact that CARB's ACC II regulations phase out the ability of manufacturers to include ZEVs in the LEV IV fleet calculation, whereas the LMDV Multipollutant Rule allows ZEVs to be considered in determining the fleet average. However, the degree to which the LMDV Multipollutant Rule PM standard may achieve greater emission reductions in the longer term compared to LEV IV is outweighed by the greater impact of California's ZEV program when the ACC II standards are considered in the aggregate. That is, the overall reductions in PM resulting from the increasing share of ZEVs due to the ACC II ZEV

regulations offsets any small differences that may exist in the stringency of PM standards applicable to non-ZEVs.[95]

This same reasoning regarding the in-the-aggregate effect of the ACC II regulations' LEV IV and ZEV standards applies to all pollutant-specific standards. CARB's zero-emission standards allow no tailpipe emissions of any air pollutant from an increasing share of new California light-duty vehicles. As such, CARB's ZEV regulation causes the State's light duty mobile source vehicle emissions program to be in the aggregate more protective than EPA's light duty program, including for oxides of nitrogen, non-methane organic gases, carbon monoxide, and greenhouse gases, in addition to particulate matter.[96] Therefore, considering CARB's standards in the aggregate, as required by CAA section 209(b)(1), CARB's protectiveness determination is reasonable and supported, and is not arbitrary and capricious.

[95] Another commenter stated that because vehicles with internal combustion engines draw in ambient air for combustion, the engine and exhaust aftertreatment system will remove some portion of the ambient criteria pollutants from that intake air while also removing them from the combustion exhaust. G. Yowell, EPA-HQ-OAR-2023-0292-0175. According to the commenter, displacing internal combustion engine (ICE) vehicles through the ZEV sales requirement will therefore eliminate this method of ambient air pollution abatement. However, the commenter does not explain how this effect would outweigh the overall emission reduction benefits of displacing ICE vehicles with ZEVs. In a similar vein, some commenters asserted that ZEVs, because they tend to be heavier than ICE vehicles, may increase PM2.5 through tire wear. This commenter made no attempt to weigh such emissions against the overall PM2.5 reductions achieved by the ZEV mandate. We note CARB used its EMFAC model to estimate non-engine particulate emissions, and so did take this into account.

[96] CARB's light-duty vehicle GHG emission standards were unchanged by ACC II, and therefore, the ACC I GHG emission standards applicable to 2025 and subsequent model years remains unchanged. See California Code of Regulations (CCR), Title 13 CCR 1961.2(d). These GHG standards continue to be covered by EPA's ACC I waiver issued in 2013 (78 FR 2211 (January 9, 2013) and reinstated in 2022 (March 14, 2022)). EPA's review of CARB's protectiveness determination made in the context of ACC I, including CARB's GHG regulations, is not undermined by CARB's ACC II regulations. EPA is not in this ACC II waiver action reopening the finding it made in the ACC I waiver that CARB's protectiveness determination was not arbitrary and capricious. EPA notes that commencing with the 2025 model year the CARB ACC I GHG and EPA GHG standards are equivalent and then in the 2026 and subsequent model years the EPA GHG standards become more stringent. EPA also notes, however, that while California's ACC I GHG standards do not increase in stringency after 2025 while EPA's LMDV standards continue to increase in stringency, this difference in stringency is offset by CARB's requirement to phase-in of higher ZEV percentages in its ACC II regulations (as well as other requirements such as CARB's Advanced Clean Truck (ACT) program's ZEV requirements for heavy-duty vehicles, waived by EPA at 88 FR 20688 (April 6, 2023).). Moreover, to the extent an "in the aggregate" assessment is performed for CARB's light-duty vehicle emission program, there is no adverse effect of EPA's LMDV Multipollutant Rule on the protectiveness finding. The "applicable Federal standards" in this case are national ("50 state") GHG fleet average requirements that commence in the 2027 model year with the LMDV Multipollutant Rule. 89 FR 27842 (April 18, 2024).

We return now to the contention of some commenters that, in evaluating the State's determination that its standards are no less protective of public health and welfare, EPA must consider factors other than the reduction in vehicle emissions. For example, EPA received comment regarding the definition and application of the phrase "public health and welfare" in CAA section 209(b)(1). The impacts that commenters asserted fall within "public health and welfare" include effects on the economy, jobs, lifecycle emissions associated with ZEVs, and other considerations. Many commenters asserted the definition of "effects on welfare" found in CAA section 302(h), listing a broad range of effects, governs the interpretation of "welfare" in section 209(b). One commenter claimed that "public health" and "welfare" are different terms that must be analyzed separately.

Following these threads, many commenters pointed to numerous considerations that they claim CARB failed to consider. One commenter stated that CARB's GHG regulations should be based on a technology-neutral assessment of lifecycle GHG emissions, rather than discriminating "against lower-carbon intensity liquid fuels."[97] Commenters also identified safety issues, vehicle manufacturing, electricity generation, brake and tire wear, and end-of-life battery disposal as factoring into the protectiveness determination. One commenter claimed that CARB's analysis was arbitrary and capricious because it was incomplete and illegal under California law.[98]

California, in its Supplemental Comments submitted by the Attorney General's Office, responded to many of these comments.[99] Regarding the appropriate scope of the protectiveness determination, the Supplemental Comments note that the CAA does not require California to

[97] American Petroleum Institute (API), EPA-HQ-OAR-2023-0292-0174, p.15; Dealership Services Direct, EPA-HQ-OAR-2023-0292-0196, p.2.
[98] American Fuel and Petrochemical Manufacturers (AFPM), EPA-HQ-OAR-2023-0292-0226, p.2.
[99]Supplemental Comments pp.19-24.

conduct a distinct "public health and welfare" analysis, nor does it prescribe a "method" that California must use to make a protectiveness determination. The Supplemental Comments explain the State's position that the effects pertinent to the CAA section 209(b)(1) determination regarding public health and welfare are only those caused by air pollution emitted from regulated motor vehicles.

The Supplemental Comments note that, although not required under CAA section 209(b)(1), CARB did in fact consider the broad scope of issues commenters raise in this waiver adjudication. The Supplemental Comments note that "CARB conducted a lifecycle assessment of vehicle emissions, considered and rejected a low-carbon fuel alternative, analyzed alternative with less stringent ZEV regulations and an alternative with no LEV regulation updates, and addressed comments concerning the used car market."[100] The Supplemental Comments state that although one commenter[101] identifies the impacts of electrification and related infrastructure on wildfire, biological resources, housing, waste, vehicle and insurance prices, and safety as effects California must consider in a "welfare analysis," that commenter did not provide any evidence that the ACC II regulations will negatively impact those areas, and that in any case, those issues were sufficiently addressed during the State's rulemaking.

EPA disagrees with commenters who assert that CAA section 209(b)(1) or section 302(h) require it to consider additional factors in its evaluation of CARB's protectiveness determination beyond the impacts of vehicle emissions.[102] As noted in the State's Supplemental Comments,

[100] *Id.* at 19-20.
[101] AFPM pp.13–14.
[102] EPA notes that CARB did address the issues raised by the commenters here but that in the limited context of CARB's protectiveness determination EPA believes such issues are beyond the scope of the first waiver criterion. Nevertheless, even if such issues were relevant, EPA notes that CARB has reasonably addressed the comments raised.

CAA section 209(b)(1) does not prescribe a method for CARB to make a protectiveness determination. CARB has sought waivers—and EPA has granted waivers—for decades without consideration of the broad additional factors commenters now suggest are necessary.[103] Indeed, judicial precedent indicates that consideration of such additional factors is impermissible. For instance, the petitioners in *MEMA I*, analogizing to interpretations of "public health" in other statutes, advanced the argument that "public health and welfare" includes antitrust concerns.[104] Considering the statutory context, the court found that "'public health and welfare' is directly related to the effects of pollution on the environment," which also "encompass[es] economic values, but only to reflect the economic costs of pollution, not the social costs of pollution control."[105] In other words, as used in section 209(b) and throughout the CAA, the statutory term "public health and welfare" refers to the impacts of air pollution on health and welfare, as opposed to a more general review of all potential implications of the regulation on the public interest.[106]

When Congress has wanted EPA to consider social costs in implementing the CAA, it has been able to say so explicitly, such as where CAA section 317 "carefully distinguishes between protection of the public health and welfare and concern with anti-competitiveness."[107] Commenters fail to persuasively address this part of *MEMA I*, or to otherwise explain why the term "public health and welfare" refers to an expansive consideration of the public interest given the context of the CAA, a statute whose purpose is to control and prevent air pollution. This is especially true of CAA section 209, which circumscribes the criteria by which EPA can deny a

[103] Supplemental Comments p.19.
[104] *MEMA I*, 627 F.2d at 1117.
[105] *Id.* at 1117–18.
[106] *See id.* (collecting CAA authorities); *see also* CAA section 101(a)(2).
[107] *MEMA* I, 627 F.2d at 1118.

waiver and is backed by legislative history that strongly supports providing flexibility to California.

Commenters' reference to CAA section 302(h) is likewise unpersuasive. While that section provides an extensive list of "effects on welfare," all are effects "*caused by* transformation, conversion, or combination with other *air pollutants*," (emphasis added).[108] This language supports, rather than belies, the conclusion that section 209(b)(1), like other provisions of the CAA that refer to "effect on welfare," is concerned only with effects caused by air pollution.[109]

The CAA's reference to "welfare" therefore speaks to the impacts of air pollution on public welfare, not to the broader social and economic costs of pollution control.[110] Moreover, were the protectiveness determination's reference to "welfare" so broad as to encompass the entire range of potential social and economic costs and impacts as commenters suggest, that would render superfluous the third prong's requirement that the State's standards be consistent with CAA section 202(a), an inquiry that has historically involved assessment of feasibility and compliance costs to vehicle manufacturers.

A number of commenters focused on lifecycle emissions as being particularly relevant to the protectiveness determination as it relates to the State's ZEV regulations. EPA has consistently determined that CAA section 209(b)(1)(A) does not require California to consider lifecycle

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[108] 42 U.S.C. § 7602(h); *see MEMA I*, 627 F.2d at 1118.

[109] In applying the list from section 302(h) to CAA Title I implementation, the U.S. Supreme Court declared that, although the list is not exhaustive of effects that may be considered, cost is "*both* so indirectly related to public health *and* so full of potential for canceling the conclusions drawn from direct health effects that it would surely have been mentioned in §§ 108 and 109 had Congress meant it to be considered." *Whitman v. Am. Trucking Ass'n*, 531 U.S. 457, 469 (2001).

[110] *Am. Petroleum Inst. v. Costle*, 665 F.2d 1176, 1186 (D.C. Cir. 1981); *Nat'l Lime Ass'n v. EPA*, 627 F.2d 416, 431 n.48 (D.C. Cir. 1980) (discussing EPA's authority to consider dust "nuisance" as impacting public welfare, a situation in which the dust itself caused the detrimental effects).

emissions.[111] The text of section 209(b)(1) does not suggest that CARB or EPA must generally evaluate emissions from sources other than motor vehicles, including those sources regulated by separate federal and state programs,[112] or specifically evaluate lifecycle emissions. The Act's entire structure evidences a clear divide between stationary sources (regulated under Title I) and mobile sources (regulated under Title II). There may be indirect impacts of stationary source regulation on mobile sources and vice versa, and it may be appropriate to consider those impacts in some circumstances, but it would be inappropriate and contrary to the plain text of the Act to conflate the consideration of indirect impacts, when appropriate, with actually treating stationary source emissions as mobile source emissions.[113] To the extent such impacts and decisions could be relevant to CAA section 209(b)(1)(A), commenters failed to adduce sufficient evidence to this argument pertaining to lifecycle emission or other impacts considering California's technical findings relating to these issues.[114]

Moreover, the State's choice to focus on motor vehicle emissions in making its protectiveness determination regarding its motor vehicle program, as the State and EPA have done in waiver proceedings since the earliest days of the Act, is hardly arbitrary and capricious.

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[111] 88 FR 20694, 20698 (April 6, 2023).

[112] *E.g.*, fuels are covered by EPA's section 211(o) fuels programs, including the Renewable Fuel Standard ("RFS") program, which supports renewable fuel use. *See* 88 FR 44468. Battery recycling, electricity generation, and other issues cited by commenters are likewise covered by other programs.

[113] *Cf. Coal. For Responsible Regul., Inc. v. EPA*, 684 F.3d 102, 128–29 (D.C. Cir. 2012), aff'd in part, rev'd in part sub nom. *Util. Air Regul. Grp. v. EPA*, 573 U.S. 302 (2014), and amended sub nom. Coal. *For Responsible Regul., Inc. v. EPA*, 606 F. App'x 6 (D.C. Cir. 2015) ("EPA was not arbitrary and capricious by not considering stationary-source costs in its analyses.").

[114] Supplemental Comments pp.19-21 footnotes 113-116. CARB conducted a lifecycle emissions analysis – see CARB comment at note 89 on page 8-9; CARB Public Hearing Response (EPA-HQ-OAR-2023-0292-0227 at 18-21; EPA-HQ-OAR-2023-0292-0013). CARB also considered low-carbon fuel alternatives (ACC II Final Statement of Reasons (FSOR), App. A, EPA-HQ-OAR-2023-0292-0028, p.83; Final EA at 180-181). CARB also conducted analyses related to less stringent ZEV sales requirements and alternatives with no LEV regulatory updates and addressed comments concerning the used car market. EPA notes that in each instance the commenters on the ACC II regulations waiver request have only submitted conclusory statements regarding such issues and to the extent any information and data was submitted it did not rise to the level of clear and compelling evidence that CARB's analyses were arbitrary and capricious or otherwise reasoned findings and reasoned regulatory choices.

By contrast, it would be peculiar for Congress—in enacting a waiver provision specifically intended for California to blaze its own trail in the control of motor vehicle emissions—to foreclose the State's ability to implement its motor vehicle program because of impacts on an entirely separate universe of sources for which the State and EPA have separate obligations under Title I. It would thus be contrary to the purpose of the Act if EPA declined to grant a waiver of preemption for otherwise-appropriate standards to reduce emissions from new vehicles because additional reductions in pollution could be achieved by refineries, electric generating units, or raw materials manufacturing facilities.

That the protectiveness determination is limited to comparing the stringency of the State versus Federal motor vehicle emissions standards is especially clear in light of the statutory history and purpose. In the original 1967 law that created the California waiver provision, Congress stated the protectiveness determination as "such State does not require standards more stringent than applicable Federal standards."[115] This inquiry clearly applies only to the stringency of the standards, as opposed to a wide-ranging consideration of their potential social and economic impacts. In the 1977 Amendments, Congress retained this standard-by-standard comparison of stringency in CAA section 209(b)(2), while also adding to the statute the "in the aggregate" and the "arbitrary and capricious" language so as to expand California's discretion to adopt certain standards that were less stringent than the Federal standards, so long as the State's program was "in the aggregate, at least as protective of public health and welfare."[116] Commenters' claim—that this new text should be read to give EPA license to deny waivers based

[115] P.L. 90-148, section 208(b), 81 Stat. 501 (1967).
[116] *See MEMA I*, 627 F.2d at 1110-11 (citing H.R. Rep. No. 95-294 at 301-02 (1977)); *see also Ford*, 606 F.2d at 1296-97.

on the Administrator's judgments about sundry social and economic costs of pollution control—is inconsistent with the statutory history and purpose to expressly expand the State's discretion.

As the Act has been structured since 1977, the meaning of "public health and welfare" in CAA section 209(b)(1) is informed by the use of that same phrase in section 209(b)(2). The express acknowledgement in section 209(b)(2) that if each State standard is more stringent than the comparable Federal standard, then the State's standard is at least as protective of public health and welfare leaves no room for argument that protectiveness in that situation depends on factors other than vehicle emission reductions. Yet to sustain their interpretation of "public health and welfare" in section 209(b)(1) as including broader factors, commenters would have to argue that the same phrase has different meanings in adjacent statutory provisions. The implication would be that "public health and welfare" has a narrower meaning (i.e., only health and welfare impacts associated with vehicle emissions) when each individual State standard is more stringent than the comparable federal standard, but a broader meaning (e.g., general social impacts associated with various upstream and downstream activities) when any variation in stringency requires protectiveness to be determined "in the aggregate." There is no reason to believe Congress intended "public health and welfare" to have a different meaning depending on the happenstance of the relative stringency of one or more standards.

As noted above, CARB in its rule development process for the ACC II regulations did in fact consider a broad range of topics beyond the effects of vehicle emissions reductions. CARB conducted a lifecycle analysis (LCA) and included various studies and data in the record.[117] Among other things, CARB concluded that ZEVs far outperform their conventional counterparts

[117] Supplemental Comments pp.19–20.

in reducing GHGs as well as criteria pollution.[118] CARB also considered various alternatives and impacts to the used car market. CARB previously addressed commenters' concerns in its record, and commenters provided no new evidence that the ACC II regulations will negatively impact these factors. To the extent that EPA discusses broader issues in the context of consistency with CAA section 202(a), see *infra* Section III.C and in EPA's SRTC.

Therefore, EPA's assessment is that the ACC II regulations that comprises both the LEV IV criteria pollutant standards and the ZEV standards are at least as protective in the aggregate as the relevant comparable Federal standards, including those in EPA's recent final LMDV Multipollutant Rule.[119] This factual finding builds on EPA's prior waiver determinations that California's motor vehicle program—including its standards, test procedures, and enforcement procedures for light, medium, and heavy duty vehicles and engines—are at least as protective in the aggregate as the Federal motor vehicle program. Therefore, considering California's program as a whole, EPA finds that the California motor vehicle program is as at least as protective in the aggregate as the Federal motor vehicle program.

Opponents to the waiver failed to submit persuasive evidence undermining California's protectiveness determination. As explained above, many opponents sought to erroneously expand the scope of the inquiry to factors beyond motor vehicle emissions and the air pollution to which they contribute. With respect to actual emissions from motor vehicles themselves, however, opponents of the waiver provided little or no evidence, with virtually no supporting data or

[118] CARB also addressed lifecycle emission concerns in its Response to Comments on the Draft Environmental Analysis for the Advanced Clean Cars II Program, EPA-HQ-OAR-2023-0292-0540 Attachment 10, Aug. 24, 2022; CARB ACC II FSOR Appendix A: Summary of Comments to the Overall Advanced Clean Cars II Regulations and Agency Responses, EPA-HQ-OAR-2023-0292-0540 Attachment 5, Aug. 25, 2022, pp.42-43, 114-115, 121-122.
[119] 89 FR 27842, April 18, 2024.

analysis. Such skeletal allegations are insufficient, particularly in the face of the well-articulated rationale and quantitative analysis supplied by the State.

4. Section 209(b)(1)(A) Conclusion

Based on the record before EPA, we cannot find that CARB was arbitrary and capricious in its determination that its standards within the California ACC II regulations are in the aggregate at least as protective of public health and welfare as applicable Federal standards. CARB has provided reasonably detailed information to support its protectiveness determination. Commenters have not provided sufficient information and analysis to undermine CARB's protectiveness determination. Because opponents of the waiver have not met their burden of proof to demonstrate that CARB's protectiveness determination associated with the standards contained within their ACC II regulations waiver request was arbitrary and capricious, EPA cannot deny CARB's waiver request based on CAA section 209(b)(1)(A).

B. Second Waiver Criterion: Does California Need Its Standards to Meet Compelling and Extraordinary Conditions?

Under CAA section 209(b)(1)(B), EPA must grant a waiver for California vehicle and engines standards and accompanying enforcement procedures unless it finds that California "does not need such State standards to meet compelling and extraordinary conditions." California continues to experience compelling and extraordinary conditions that cause it to need the air pollution reductions that will be achieved by the LEV IV and ZEV standards. Much of the comment on the second waiver criterion addressed whether the proper legal interpretation of section 209(b)(1)(B) requires that need for LEV IV and ZEV standards be assessed separately or as part of the State's entire mobile source program. This question of legal interpretation has been raised in past waivers as waiver opponents, and for a brief time EPA, have interpreted the statute

to require that the need for GHG standards must be evaluated separately. In this section, we again address the legal interpretation. Just as importantly we explain that in the context of this waiver the legal interpretation does not matter; both the LEV IV and ZEV standards considered will each require needed reductions of criteria pollutants.

Commenters who disagreed with EPA's longstanding legal interpretation of the second waiver criterion focused their attention on evaluation of need for the ZEV standards. Most if not all these commenters characterized the ZEV standard as a GHG-reducing measure adopted by the State to address climate change. In responding to these comments, it is important to reiterate that, given that the ACC II ZEV regulations will achieve reductions in both traditional local and regional air pollutants (criteria emissions) as well as GHGs,[120] arguments that characterize it as a standard addressing only GHGs are based on a faulty factual premise. When the ZEV requirements are accurately characterized as criteria-reducing standards (in addition to reducing GHGs), questions regarding the traditional versus alternative interpretation recede.[121] Nevertheless, as explained below, EPA finds that CARB has reasonably demonstrated that the

[120] "The emission reductions from the ACC II regulations, taken together, are necessary to attain the State and National Ambient Air Quality Standards (NAAQS) for criteria pollutants in California, reduce the burden of air pollution throughout the State (including and especially in overburdened communities near roadways and other high traffic areas), and reduce statewide GHG emissions to at least 85% below the levels of 1990 to achieve the State's goal of carbon neutrality by 2045." Waiver Request Support Document pp.2-3. "As discussed above in the ISOR and related rulemaking documents, and in Resolution 22-12, light- and medium-duty vehicles are significant sources of NOx, PM2.5, and GHGs. The ACC II regulations will significantly reduce these health- and climate-harming emissions, as shown in the table below of the regulations' total emission benefits from 2026 through 2040, by calendar year…Although the ZEV and LEV IV components of the ACC II regulations are complementary to each other and will be implemented in tandem, each delivers important emission reductions to Californians." *Id.* at 38-40.

[121] EPA has previously explained that to the extent it was appropriate to examine California's need for the ZEV sales requirements, these requirements would enable California to meet both air quality and climate goals into the future. Additionally, EPA recognized CARB's coordinated strategies were reflected in the technologies anticipated to be necessary to meet the ACC program requirements and in turn addressing both criteria pollutants and GHGs and the magnitude of the technology and energy transformation needed to meet such goals. 87 FR at 14354, 14361.

ZEV standard itself is needed to meet compelling and extraordinary conditions regardless of whether it is reviewed or assessed as a criteria pollutant or GHG standard.[122]

Comments regarding the second waiver prong are summarized in greater detail below. As a broad overview, comments argued for and against EPA's longstanding legal interpretation. Commenters also disputed whether CARB has as a factual matter demonstrated compelling and extraordinary conditions both with regard to local and regional air quality problems and with regard to climate change. EPA also received comments that the interpretation of whether there is a "need" to meet "compelling and extraordinary conditions" under the second waiver prong must meet the standards for statutory clarity required under the "major question doctrine" and federalism canons. EPA also received comment that the "equal sovereignty doctrine" should influence statutory interpretation of the second waiver prong and, regarding evaluation of GHG standards, specifically should require that conditions in California be truly unique.[123]

As explained below, EPA finds that the opponents of the waiver have not met their burden to demonstrate a lack of compelling and extraordinary conditions such that there is no need for the ZEV or LEV IV standards to address both local and regional air quality conditions related to criteria air pollutants. Such a need also exists to address climactic conditions created by GHG emissions and the associated effects on local and regional air quality conditions

[122] As noted below, California continues to experience compelling and extraordinary conditions regarding its poor air quality, including its smog and particulate matter conditions, along with compelling and extraordinary conditions associated with climate change and impacts within California.

[123] At the outset, EPA notes that its review of CARB's waiver request is narrow and limited to whether EPA can find at least one of the three waiver criteria specified in section 209(b)(1), otherwise the Administrator "shall, … waive application" of section 209(a). Therefore, EPA's longstanding practice is to abide by the text of the statute and not consider factors outside of section 209(b)(1) – such as constitutional arguments or the preemptive effect of other federal statutes. EPA addresses these comments in the "Other Issues" in Section IV. To the extent commenters contend that these constitutional issues or other federal statutes bear on EPA's interpretation of the second waiver criterion and associated factual findings, such comments are addressed within this second waiver criterion section.

(including ozone exacerbation, water availability, fire risk, and other compelling and extraordinary conditions in California.

Many of the comments arguing against the traditional interpretation were also made in the Safer Affordable Fuel-Efficient Vehicles Rule reconsideration (SAFE 1 Reconsideration) proceeding.[124] After reconsidering these arguments, EPA's response to these arguments remains the same as in the SAFE 1 Reconsideration decision, and EPA incorporates the relevant reasoning in that action here.[125] Similar adverse comments were made in the Heavy-Duty Advanced Clean Truck (HD ACT) waiver proceeding. EPA's response to these arguments likewise remains the same as stated in EPA's waiver decision for CARB's HD ACT regulations.[126] EPA provides further explanation regarding its interpretation of the second waiver prong along with its factual assessment of the compelling and extraordinary conditions below.

1. EPA's Traditional Interpretation of Section 209(b)(1)(B)

EPA has traditionally interpreted CAA section 209(b)(1)(B) to require an inquiry into the question of whether conditions in the State are "compelling and extraordinary" such that there is a need for the State to have a mobile source emissions control *program* that is distinct from the Federal program.[127] This interpretation, referred to here as the "traditional" interpretation, dates

[124] EPA issued *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program; Withdrawal of waiver; final rule* on September 27, 2019 (84 FR 51310) that withdrew the waiver for CARB's ACC I ZEV and GHG regulations. EPA's reconsideration of this decision and reinstatement of the waiver for ACC I ZEV and GHG regulations is at 87 FR 14332 (March 14, 2022) (SAFE 1 Reconsideration decision).
[125] 87 FR 14332, 14334, 14352–55, 14358–62 (March 14, 2022).
[126] 88 FR 20688, 20701-20704 (April 6, 2023).
[127] EPA has implemented this interpretation in numerous waiver action. See, e.g., 88 FR 20688 (April 6, 2023), 87 FR 14332 (March 14, 2022), 78 FR 2211 (January 9, 2013), 49 FR 18887, 18890 (May 3, 1984) ("The interpretation that my inquiry under section 209(b)(1)(B) goes to California's need for its own mobile source program is borne out not only by the legislative history, but by the plain meaning of the statute as well."). In EPA's 2022 action that reinstated the ACC I waiver issued in 2013, EPA concluded that the ACC I waiver had been properly granted

back to the very beginning of EPA's implementation of the California waiver provision. The 1967 waiver provision, section 208(b), stated:

> The Secretary shall, after notice and opportunity for public hearing, waive application of this section to any State which has adopted standards (other than crankcase emissions standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966, unless he finds that such State does not require standards more stringent than applicable Federal standards to meet compelling and extraordinary conditions or that such State standards and accompanying enforcement procedures are not consistent with section 202(a) of this title.[128]

Congress set to EPA the task of determining whether California "require[d] standards more stringent than Federal standards[,]" not to determine whether California needed particular standards in a given waiver request.[129] This narrow question precluded EPA from prescribing standards for California, an option specifically rejected by Congress.[130]

The 1977 Amendments modified the California waiver provision, effectively ratifying EPA's interpretation and confirming California's discretion to develop its own motor vehicle program. Considering the revised statutory language now in section 209(b)(1)(B), EPA continued to apply the same interpretation of the statute, including roughly contemporaneous with the enactment of the current waiver language in 1977, and since then, EPA has repeatedly concluded

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pursuant to section 209(b)'s criteria (see 87 FR 14358-14361; *see also* 78 FR at 2113). In reaching that conclusion, EPA affirmed that the 2013 waiver grant had correctly considered California's standards in the aggregate, as EPA has consistently done in waiver decisions across the last five decades. (See 87 FR 14353-14354 (discussing this traditional practice; cf. *Motor & Equipment Mfrs. Ass'n,* 142 F.3d at 464 (agreeing with EPA that, for purposes of section 209(b)(1)(C), "California's consistency is to be evaluated 'in the aggregate' rather than on a one-to-one basis.")).

[128] Pub. L. No. 90-148, § 208, 81 Stat. 501 (1967).

[129] Early waiver actions directly cited this language, finding that California still required more-stringent standards to meet its compelling and extraordinary conditions. *See, e.g.*, 33 FR 10160 (July 16, 1968); 34 FR 7348 (May 6, 1969); 36 FR 8172 (Apr. 30, 1971).

[130] *See* 40 FR 23102, 23103 (May 28, 1975).

that it is the "most straightforward reading of the text and legislative history.[131] Over the last fifty-five years, EPA has applied the traditional interpretation in over seventy-five waiver adjudications.[132]

EPA has on two separate instances taken the position that, for GHG standards only, whether there is a need to addressing compelling and extraordinary conditions should be addressed separately from the remainder of the program. This was referred to as "the alternative interpretation" or "the standard-by-standard approach."[133] In both instances, EPA corrected itself and explained that the alternative interpretation is flawed and inappropriate and reaffirmed that the traditional interpretation is the best interpretation.[134] EPA stated in the notice for comment on CARB's ACC II waiver request its intent to apply the traditional interpretation.[135]

This focus on the State program, rather than on a subset of standards within the program, is the only reading that harmonizes with the CAA section 209(b)(1) directive that the protectiveness of the State's standards be considered "in the aggregate." It is also the only reading that gives consistent meaning to the phrase "such state standards" as those words appear throughout section 209(b). Finally, this reading is also in harmony with the structure of section 209(b) as a whole, which sets forth the Administrator's duty to "waive application of

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[131] EPA has long held that its review under section 209(b)(1)(B) is not based on whether California has demonstrated a need for particular regulations, but upon whether California needs standards to meet compelling and extraordinary conditions. 44 FR 38660, 38661 (July 2, 1979). *See also* 87 FR at 32761, 87 FR at 14358.
[132] The D.C. Circuit has recognized this history (*see Ohio v EPA,* 98 F.4th 288 (D.C. Cir. 2024) "[T]he EPA has granted California seventy-five waivers using the aggregate method of evaluation." *Id.* at 296.)
[133] 73 FR 12156 (March 6, 2008). In *The Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program; Withdrawal of Waiver; Final Rule* (SAFE I) 84 FR 51310 (September 27, 2019), EPA withdrew a portion of the waiver it had previously granted for California's ACC program— specifically, the waiver for California's ZEV requirement and the GHG emission standards. Applying the alternative interpretation, EPA based its action, in part, on its determination that California did not need these emission standards to meet compelling and extraordinary conditions.
[134] 74 FR 32744 (July 8, 2009); 87 FR 14332 (March 14, 2022).
[135] 88 FR 88908, 88909-88910 & n.11 (EPA also noted that CARB's May 22, 2023, waiver request addresses both the traditional and an alternative interpretation wherein the need for the specific standards in the waiver request would be evaluated.).

[preemption] to any State" that satisfies the criteria, as opposed to the Administrator's duty to process particular waiver requests.[136]

For nearly the entire history of the waiver program, EPA has read the phrase "such State standards" in CAA section 209(b)(1)(B) as referring back to standards "in the aggregate" in the root paragraph of section 209(b)(1), which calls for California to make a protectiveness finding for its standards. EPA has interpreted the phrase ''such State standards'' as referring to California's program as a whole, rather than a specific standard, in each instance that this phrase occurs in section 209(b)(1), which is to say, within each of the three prongs. Thus, in the second prong, consistent with the analysis in the first and third prongs, EPA evaluates "need" with reference to California's program as a whole.[137]

Through decades of consistent EPA interpretation and practice that spanned two major amendments to the CAA, Congress did not disturb this reading of CAA section 209(b)(1)(B) that calls for review of California's whole program. This ratification further evidences Congress' intent to allow California to address its extraordinary environmental conditions and foster its role as a laboratory for motor vehicle emissions control.[138] EPA has acted consistently with this intent by evaluating CARB's waiver requests to allow the broadest possible policy discretion for California to select the means it determines best to protect the health and welfare of its citizens in

[136] Elsewhere in the statute, Congress did clearly indicate EPA's role in evaluating particular submissions from States (or other parties), as opposed to the State's program as a whole. See, e.g., CAA section 110(a), (c), (k), (l); 211(o)(7)(B), (o)(9)(B)(iii). *See Ohio v. EPA*, 98 F.4th at 295 ("In other words, the federal regulations continue to act as the floor for emissions regulations, but California can seek to enact its own more stringent regulatory program above those federal requirements.").

[137] 49 FR 18887, 18890 (May 3, 1984) ("The interpretation that my inquiry under section 209(b)(1)(B) goes to California's need for its own mobile source program is borne out not only by the legislative history, but by the plain meaning of the statue as well.").

[138] See*, e.g.,* S. Rep. No. 403, 90th Cong., 1st Sess. 33 (1967) (The waiver of preemption is for California's ''unique problems and pioneering efforts.''); 113 Cong. Rec. 30950, 32478 ("[T]he State will act as a testing agent for various types of controls and the country as a whole will be the beneficiary of this research.") (Statement of Sen. Murphy). *See also Ohio v EPA* at 295-296.

recognition of both the harsh reality of California's air pollution and the importance of California's ability to serve as a pioneer and a laboratory for the nation in setting new motor vehicle emission standards and developing control technology.[139] This approach has been affirmed by the D.C. Circuit, which has noted that "the statute does not provide for any probing substantive review of the California standards by federal officials."[140]

More recently EPA has confirmed the traditional interpretation in the context of assertions by commenters that the equal sovereignty doctrine requires that the second prong be interpreted such that the "compelling and extraordinary conditions" in California must be "unique" or entirely different than other states even as to impacts of GHG emissions.[141] These commenters combine an assertion that the Act must be interpreted to require a separate examination of the need for GHG-reducing standards with the factual claim that GHG impacts on California are not sufficiently distinct to explain what they characterize as the unequal sovereignty created by CAA section 209. Below we explain why this argument is incorrect in a number of ways.

2. CARB's Discussion of California's Need for the Standards in the Waiver Request

CARB notes in its waiver request that the EPA has consistently recognized that California satisfies the second criterion for waivers. CARB's waiver request includes its demonstrations that, under either EPA's traditional interpretation or the alternative interpretation offered by some commenters, there is no basis under the second prong to deny the waiver request.[142]

[139] *Ohio v EPA*, 98 F.4th at 295-297.
[140] *Ford*, 606 F.2d at 1300. 74 FR at 32763–65; 76 FR 34693; 79 FR 46256; 81 FR 9598.
[141] Illinois Corn Growers, p.31; Ohio Office of the Attorney General, et al. (Ohio AG), EPA-HQ-OAR-2023-0292-0172, p.9.
[142] Waiver Request Support Document at 35-44.

Addressing whether conditions are compelling and extraordinary, CARB notes that the very conditions in California that moved Congress to authorize the State to establish separate on-road motor vehicle standards in 1967 remain today, despite decades of stringent regulation and substantial progress to reduce pollution levels.[143] CARB notes that 38 California counties are in nonattainment with the 2015 eight-hour ozone 0.070 ppm National Ambient Air Quality Standards (NAAQS), and 14 of California's counties are in nonattainment with the 2012 $PM_{2.5}$ NAAQS.[144]

CARB also notes, as discussed below, that California's climate change conditions also preclude denial of this request under the second criterion. CARB notes that California continues to experience some of the worst air quality in the nation and that rising temperatures caused by climate change will further exacerbate these conditions by accelerating the chemical reactions that form ozone and particulate matter emissions.[145]

CARB states its agreement with EPA's reconsideration action of SAFE 1 wherein EPA restored the waiver for ACC I by rescinding the 2019 SAFE I action.[146] Nevertheless, CARB

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[143] *Id*. citing 40 FR at 23104; 74 FR 32744, 32762-32,763 (July 8, 2009); 79 FR 6584,6588-590 (Feb. 4, 2014); 82 FR 6540, 6543 (Jan. 19, 2017).

[144] Waiver Request Support Document p.36. See https://www3.epa.gov/airquality/greenbook/ancl.html#CA (last accessed March 15, 2023). As of October 31, 2024, California has 37 counties and two tribal areas in nonattainment with the 2015 eight-hour ozone NAAQS and 14 counties in nonattainment with the 2012 $PM_{2.5}$ NAAQS.

[145] Waiver Request Support Document at 36-37. "California, particularly in the South Coast and San Joaquin Valley Air Basins, continues to experience some of the worst air quality in the nation. The South Coast and San Joaquin Valley Air Basins, in particular, continue to be in extreme non-attainment with the NAAQS for ozone and in serious non-attainment with the standards for particulate matter. California has six of the ten cities that suffer the worst ozone pollution in the nation and seven with the worst particulate pollution. California is especially prone to harmful ozone because it has so much of the three ingredients: stagnant air caused by topography, sunshine, and significant populations of people burning fuel. This pollution will be exacerbated by rising temperatures caused by climate change, exacerbating California's need to reduce ozone-forming and particulate matter emissions. Ozone and particulate matter are serious health concerns. They cause illness, heart disease, strokes, decreased lung function, cancers, and decreased lifespans. Passenger cars and light trucks operating on roads are significant sources of organic gases, oxides of nitrogen, toxic compounds, and fine particulate matter."

[146] Waiver Request Support Document at 37-38. CARB notes and agrees with EPA's analysis of the text of section 209 and the congressional intent behind the provision.

notes that even if the narrower, standards-specific inquiry adopted by EPA in SAFE I were to be applied, the record demonstrates that California "needs" both the ZEV requirements and LEV IV to address compelling and extraordinary conditions in California. CARB supports this conclusion in two ways. First, CARB explains that both the ZEV requirement and LEV IV address and will help reduce significant sources of NOx and $PM_{2.5}$ from light- and medium-duty vehicles.[147] Therefore, both the ZEV requirement and LEV IV are needed to address compelling and extraordinary local and regional air quality conditions in exactly the same sense as California mobile source standards that have been the subject of waivers for over 50 years.

Second, CARB also explains that it is not necessary to consider local and regional air quality issues to conclude that the ZEV requirement and LEV IV are needed to address compelling and extraordinary conditions. In support of this conclusion, CARB explains that GHG impacts alone, considered apart from criteria pollutant impacts, create compelling and extraordinary conditions such that reductions in GHG emissions are needed.[148]

3. Comments on Section 209(b)(1)(B)

[147] *Id.* at 38-41. CARB notes that although the ZEV and LEV IV regulations are complimentary, each delivers important emission reductions in California. CARB notes that the ZEV component of ACC II will displace emissions, in 2035, from conventional vehicles with internal combustion engines and their associated upstream fuel production by 4,848 tons of NOx exhaust emissions, including 1,080 tons of upstream and 3,767 tons from downstream emissions and 389 tons of $PM_{2.5}$ emissions, including 119 tons of upstream and 271 tons from downstream emissions. Likewise, CARB notes that in 2035 the LEV IV regulation with internal combustion engines will also avoid an additional 869 tons of NOx exhaust emissions and 526 tons of ROG total emissions, including exhaust and evaporative emissions.

[148] Waiver Request Support Document at 41-44. CARB notes that EPA has previously found that California's climate change conditions are compelling and extraordinary and there is no reason to conclude otherwise now in the context of ACC II. CARB notes, as it had in the SAFE I action (EPA-HQ-OAR-2021-0257-0132) and in the Notice for Reconsideration of SAFE I that California's Fourth Climate Change Assessment that California is experiencing increase in ground-level ozone, sea level rise, reduced snowpack, etc. that constitute "compelling and extraordinary conditions." CARB notes that the Sixth Assessment of the Intergovernmental Panel on Claim Change again concluded that "human-induced climate change is already affecting many health and climate extremes around the world. CARB notes that the ACC II regulations are expected to reduce GHG emissions by 395.1 million metric tons between 2026 and 2040 and the benefits from the resulting avoided climate impacts are estimated to be between $9.8 and $40.1 billion, depending on the discount rate applied.

EPA received comment that supported both the traditional interpretation of the second waiver prong and the factual assessment that California continues to experience compelling and extraordinary conditions that create serious air quality problems and other public health and welfare problems.[149] Similarly, commenters supportive of the waiver noted that even under the alternative interpretation of the second waiver prong there is a need for the LEV IV and the ZEV requirements to meet compelling and extraordinary conditions, including conditions associated with criteria air pollutant problems, conditions and impacts from climate change, and overall impacts on public health and welfare.[150]

Commenters supportive of the traditional interpretation noted that the text and Congressional intent supported EPA's "whole program" inquiry. One commenter noted that EPA's traditional interpretation is "the most straightforward reading of the text and legislative history."[151] Regarding the text of CAA section 209(b), this commenter noted that section 209(b)(1)(B) is properly understood to refer back to the standards described just prior in section 209(b)(1), explaining that because section 209(b)(1) describes standards (plural) "in the aggregate," the reference back to "such State standards" in section 209(b)(1)(B) necessarily encompasses this "whole program" approach and means the standards at issue have already been "particularized" in the antecedent use in 209(b)(1).[152] Commenters also noted that the traditional interpretation gives all three waiver criteria distinct functions.[153] Commenters noted that Congress had amended various parts of section 209 over the years without disturbing EPA's

[149] Waiver Request Support Document; CCAE; Environmental and Public Health Organizations; States and Cities.
[150] *Id.*
[151] States and Cities, pp.12–16.
[152] *Id.* at 13-14.
[153] *Id.*

longstanding "whole program" approach.[154] In the years preceding the 1977 amendments, EPA had consistently employed a program-level approach and a commenter noted that at least once EPA rejected a narrower, single-standards approach.[155]

As noted above, some commenters opposed to the waiver conjoined the statutory interpretation argument that the second prong requires evaluation of standards individually (the alternative interpretation) with constitutional arguments that CAA section 209 is either categorically inconsistent with the equal sovereignty doctrine or is inconsistent with that doctrine as applied to climate change-related conditions. Although, as noted above, EPA in evaluating a waiver request may not consider factors external to the three waiver criteria, and thus may not consider constitutional arguments, we note that these waiver opponents' arguments regarding the proper interpretation of the second prong are intertwined with their equal sovereignty claims. An accurate description of these comments therefore requires description of both statutory and constitutional arguments.

Beginning with statutory arguments, commenters opposed to the waiver argue that the second prong requires separate evaluation of the need for the LEV IV and ZEV requirements. These commenters assert that, by its plain meaning, "such standards" in CAA section 209(b)(1)(B) must be a reference to the standards that are the subject of the waiver request, and that this refutes EPA's traditional approach to examining the "whole program" under the second

[154] *Id.* at 15-16. In 1977, when Congress added the "in the aggregate" language to section 209(b)(1) it also enacted "such State standards" language to section 209(b)(1)(B), with the stated intent of expanding California's discretion "in selecting the best means to protect the health of its citizens and the public welfare." (H.R. Rep. No. 95-294, at 301, 302 (1977). This commenter also notes that Congress, when adding section 209(e) in the 1990 amendments, adopted similar language to section 209(b)(1)(B) and yet did nothing to alter decades of EPA's practice.

[155] *See, e.g.,* 38 FR 30136, (Nov. 1, 1973); 40 FR 23102, 23104 (May 28, 1975); 41 FR 44209, 44210, 44213 (Oct. 7, 1976) (rejecting an approach by which it would determine *"whether these particular standards* are actually required by California."). (emphasis added).

waiver criterion. They further assert that the explicit use of "in the aggregate" in connection with the protectiveness determination under the first waiver criterion implies an intent not to allow the aggregation of standards for review under the second and third criterion.[156]

One commenter suggested that the fuels regulation waiver in CAA section 211(c)(4)(A) contrasts with the text in CAA section 209(b) and shows that Congress knew how to explicitly indicate the availability of a waiver for an entire program where it intended that result.[157] Waiver opponents also assert that EPA's acknowledgement in prior waiver actions of a role for standard-by-standard review for technical feasibility under the third waiver criterion, which likewise refers to "such standards," demonstrates that phrase must be interpreted the same way for the second waiver criterion as well. One commenter argued that the provision of CAA section 177 limiting states that can adopt California standards to only those with approved nonattainment plans further supports the view that Congress intended that waivers be available only for pollutants addressing criteria pollutant problems.[158]

Commenters opposed to the waiver cited certain doctrines of statutory interpretation to support their arguments. Comments asserted that when an agency asserts authority to decide a "major question," it must show "clear congressional authorization" for that authority, not just a "merely plausible textual basis" for it.[159] One commenter asserted that whether EPA may allow states to implement regulations forcing electrification of all passenger vehicles is a major question.[160] This commenter further asserted that EPA's interpretation must also take account of

[156] Texas Public Policy Foundation., *et al.* (TPPF), EPA-HQ-OAR-2023-0292-0058, pp.3–5; API, p.9; AFPM, pp.15–16.
[157] Illinois Corn Growers, p.18.
[158] CEA, p.13. EPA responds to this comment in Section IV.B.
[159] CEPA notes that this, and similar comments regarding the Major Question Doctrine, are addressed in Section IV.
[160] TPPF, pp.2–3.

the federalism canon, which requires "exceedingly clear language" to construe a statute to grant state authority to "alter the usual constitutional balance between States and the Federal government." According to the commenter, while CAA section 209(b)(1)(B) lets EPA waive preemption upon a showing of compelling and extraordinary conditions, it does not let EPA delegate more authority than it possesses under law to CARB.[161]

Focusing on legislative history, one commenter stated that the "in the aggregate" language was added in 1977 to allow California more latitude in relative stringency with respect to controlling various types of criteria pollutants due to its particular, local criteria-pollution problems (e.g., using the aggregate analysis to allow a tradeoff between nitrogen oxides (NOx) and carbon monoxide (CO) stringency). This, the commenter contends, contrasts with California's regulation of vehicle emissions for GHGs, which the commenter asserts bears no more on the problems California experiences than do the emissions in any other state or nation with respect to climate change. The commenter stated that the "pioneering efforts" of California must be tailored to California's unique problems.[162]

Addressing how the traditional "whole program" review versus their proposed standard-by-standard review serves the purposes of the statute, waiver opponents assert that a "whole program" review under the second waiver criterion yields what they characterize as the counter-intuitive result that a waiver request could never be denied until compelling and extraordinary conditions no longer exist in the state. This, they argue, would render text of CAA section 209(b)(1)(B) superfluous. These commenters also claim that "whole program" review could yield the "absurd result" of a waiver of preemption for a standard entirely unrelated to emissions

[161] *Id*.
[162] CEA, pp.11–13; TPPF, pp.3–5; Illinois Corn Growers, pp.8–9; and HF Sinclair Corporation (Sinclair), EPA-HQ-OAR-2023-0292-0220, pp.9–10.

control if that unrelated standard is packaged with legitimate emissions control standards.[163] These results are avoided, they claim, if each standard submitted for waiver is examined on its own merits.

As to the nature of a standard-by-standard review, waiver opponents propose various formulations of the test they believe is demanded by the statute. One commenter stated that to find there is a "need" for a standard, there must be a "particularized, state-specific nexus between emissions, pollution, and health and welfare impacts." This commenter stated that, in addition to this finding, there must also be a finding that the standard will have a "material" or "non-de minimis" effect in reducing that impact. Another commenter characterized the test as whether each standard proposed for waiver would have a "meaningful impact" in mitigating compelling and extraordinary conditions in the state.[164] Applying these arguments in the context of GHGs, commenters noted that even if the effects of climate change are compelling and extraordinary, there is no meaningful effect of CARB's regulations in terms of "moving the needle" on temperature within California.[165]

EPA received comments arguing that CAA section 209 on its face violates the equal sovereignty doctrine and is therefore categorically unconstitutional.[166] Some commenters argued that, even if section 209 is not categorically unconstitutional, it would be unconstitutional if interpreted to allow a waiver for the ZEV requirements of CARB's ACC II regulations.[167] Some commenters argued that a waiver for the ACC II ZEV requirements would violate federal or state statutes other than the CAA. To the extent such comments assert that section 209 is

[163] Illinois Corn Growers, p.18.
[164] CEA, p.30.
[165] TPPF, p.5; Illinois Corn Growers, p.20; and Sinclair, p.5.
[166] Ohio AG, p.8.
[167] Il Corn Growers, p.31.

unconstitutional on its face or as applied or that CARB's ZEV regulations violate other federal laws (*e.g.*, the ZEV requirements are preempted by the Energy Policy and Conservation Act (EPCA)), those comments are addressed in Section IV below. To the extent these and similar comments suggest that constitutional principles or federal law must guide EPA's interpretation and application of the second waiver criterion, EPA addresses such comments in this Section III.B.

EPA received comment that noted the position taken in the SAFE I Reconsideration decision where EPA "said it was departing from the Revocation's view that the constitutional doctrine of equal sovereignty weighed against the 'whole-program' approach."[168] This commenter asserted that EPA was correct in the SAFE I Revocation when it stated the equal sovereignty doctrine should influence the interpretation of the second prong, and incorrect in the SAFE I Reconsideration when it took a different view.

Other commenters similarly asserted that the proper legal interpretation of the second waiver criterion must recognize that California's regulation of carbon emissions is not sufficiently related to the local air pollution problem that Congress enacted to permit California to address.[169] These commenters also claimed that California seeks special treatment for its GHG targets and ZEV regulations designed to mitigate climate change – an inherently global interest. This commenter acknowledged EPA's prior recognition that parts of California had a real and significant local air pollution problem, but that EPA had previously stated that CO_2 is not part of that local problem.[170] The commenter also stated that even if preferential treatment of California

[168] CEA citing SAFE 1 recon at 14358-14359, footnote 58.
[169] Ohio AG, p.9, citing 84 FR 51310, 51330; Sinclair, p.5; and TPPF, p.5.
[170] *Id.* citing EPA's SAFE 1 NPRM, 83 FR42986,42999 (August 24, 2018).

could be upheld as applied to situations where the differential treatment is necessary, that treatment remains impermissible as applied here in the GHG context.

Other commenters asserted that even if California's local air quality warranted special treatment under CAA section 209(b) when the provision was enacted in 1967, it does not now. These commenters analogized the improvements in the State's air quality, which they characterize as significant, with changes in circumstances found relevant by the Supreme Court in *Shelby County* decision that the 2006 reauthorization of the Voting Rights Act was not sufficiently related to current conditions. This commenter further noted that "even if California smog once warranted Section 209(b)'s waiver authority to craft state-specific remedies for local air quality, those conditions could not justify Section 209(b)'s present application to state regulations (like ACC II) that address global climate change. [G]reenhouse gas concentrations are approximately constant across the globe, California's emissions have no more effect on the climate than any other states' emissions, and California is at no more risk of harm from climate variations than other states. Neither the causes nor the effects of climate change are 'sufficiently related' to California's 'geographic coverage' to warrant the state's special treatment under Section 209(b)."[171]

Similarly, another commenter argued, "[e]ven under the terms of the CAA, California regulations must only be waived if they address "compelling and extraordinary conditions" within California, for example smog in Los Angeles. But greenhouse gas emissions (GHGs), which are the target of ACCII, are not a phenomenon exclusive to California. GHGs dissipate

[171] Illinois Corn Growers, p.31.

globally, and climate change is a global phenomenon. Decisions about regulations of GHGs are a quintessentially national policy issue."

Some commenters asserted that the "disparate treatment" for California under CAA section 209 can only be "justified by 'exceptional' and 'unique' conditions," and the conditions animating section 209(b) do not come close to qualifying. "The limited instances in which the Supreme Court has permitted deviations from equal sovereignty principles involve an explicit grant of constitutional authority for disparate treatment. The Constitution gives Congress no such authority in relation to environmental laws. EPA establishes national ambient air quality standards ("NAAQS") for all states, not just California, and California is not the only state struggling to attain these national standards, which are periodically reviewed and have been reset at progressively more stringent level."[172]

EPA also received comment that claimed as a threshold matter, that wholly different federal statutory provisions preempt the ZEV regulation. Commenters claimed that as a matter of law California cannot "need" standards that are separately preempted by a different statute, and EPA's approval of a facially invalid state regulation would inherently be arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law.[173] These commenters argued EPA should deny California's waiver request because ACC II is preempted by the Energy Policy & Conservation Act (EPCA), which disallows states to "adopt or enforce" such policy.[174]

Separate from the proper legal interpretation of the second waiver criterion, EPA received comments regarding whether there is factual support for a finding of compelling and extraordinary conditions in California. A number of comments asserted that, as a factual matter,

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[172] *Id*.
[173] AFPM p.2.
[174] *Id.* pp.6-7.

California continues to experience the types of compelling and extraordinary conditions that EPA has long recognized.[175] Nitrogen oxides (NOx) and ozone pollution were highlighted in most of the comments received, although a commenter supports the ACC II regulations because "[p]assenger cars and light trucks are major contributors to California emissions of $PM_{2.5}$ [particulate matter], NOx, VOCs [volatile organic compounds], and CO_2 [carbon dioxide]." Commenters further stated that such pollutants are directly linked to long-term respiratory, cognitive, and autoimmune impairment. "California's particular struggle with air quality is underscored by the number of National Ambient Air Quality Standards Nonattainment Areas in the state. The rate of EV deployment in the state is expected to have a direct relationship with improved health outcomes, particularly for millions of individuals living near high traffic areas."[176] Commenters also wanted criteria pollutant reductions to help California attain Federal air quality standards in "California's most polluted regions." A commenter supports the ACC II regulations because "[i]n California, 40% of the population lives a third of a mile from a traffic corridor."

EPA also received comments contending that California was unable to demonstrate compelling and extraordinary conditions, including those associated with local and regional air pollutants and those associated with GHG emissions (including the effects of climate change on local and regional conditions).[177] Commenters opposing the waiver make the factual assertion that conditions in the state are no longer compelling and extraordinary, and that this is the case whether considered from a local air quality or a climate change perspective. One commenter noted that by the South Coast Air Quality Management District's own account, air quality has

[175] CCAE, Environment and Public Health Organizations, CCAE.,
[176] ZETA, Tesla, National Parks Conservation Association, Environment and Public Health Organizations.
[177] TPPF.

"improved tremendously" over the past few decades.[178] This commenter noted that ozone levels have dropped to "a fraction" of pre-1970 levels, and that the State is "close to meeting" the NAAQS for PM2.5.[179]

EPA received a number of comments not germane to the text of the second waiver criterion in terms of whether the conditions in California are compelling and extraordinary, giving rise to the need of a California program (or even a need for the standards per se), but rather questioning CARB's policy choices or general authority to set its own ACC II requirements. For example, one commenter opposing the waiver argued that the ZEV standard could not be "needed" if an alternative regulatory option could achieve the same objective at lower cost. This commenter stated that the lack of an examination of alternatives in the waiver application therefore renders the ZEV standard ineligible for waiver. EPA received similar comments that questioned California's methodology for estimating the costs and benefits of the ACC II regulation as well as the air quality benefits of ZEV (e.g., the commenter claimed that CARB inflated the criteria emission benefits of ZEV) and claimed that California did not recognize the fuel efficiency and criteria emission benefits of internal combustion engine vehicles.[180] Other commenters questioned whether California can demonstrate a "need" for its mobile source regulations based on the effect such regulations have on upstream emissions, including by reducing emissions at refineries (or that CARB is unable to claim the benefits of these secondary effects). EPA also received comment that questioned the "need" of the ACC II

[178] Illinois Corn Growers, p.20–21.
[179] *Id.*
[180] Illinois Corn Growers, pp.13–17.

regulations if the effect of the ZEV requirements would slow the fleet turnover to new cleaner internal combustion engines.[181]

4. California Needs Its Standards to Meet Compelling and Extraordinary Conditions

With respect to the need for California's standards to meet compelling and extraordinary conditions, EPA continues to apply the traditional interpretation of the waiver provision. Many of the adverse comments arguing against the traditional interpretation were also made in the SAFE 1 Reconsideration proceeding. EPA's response to those arguments remains the same as in the SAFE 1 Reconsideration decision, and EPA incorporates the relevant reasoning in that action here.[182] As stated above and similar to the SAFE 1 Reconsideration decision, EPA continues to believe the best way to interpret this provision is to determine whether California continues to have compelling and extraordinary conditions giving rise to a need for its own new motor vehicle emission program. As explained below, EPA believes there continues to be ample factual support for this conclusion. EPA therefore makes the factual finding that California has demonstrated that it needs its ACC II regulations to address compelling and extraordinary conditions, those arising from criteria pollution and separately, those arising from greenhouse gases.

Above, we noted that the validity of the traditional interpretation was thoroughly considered in the 2022 SAFE 1 Reconsideration. EPA reviewed this issue in some detail in both

[181] *Id*. (AFPM) at 8–9. This commenter noted that the "fleet turnover" problem (see Trinity Report at 9–10) would refute California's "need" for ACC II to meet any "compelling and extraordinary conditions." This commenter states that California customers would be less inclined to purchase new cars due to their more prohibitive costs. Thus, older, more fuel-intensive vehicles would stay longer in California. By extension, if ACC II in reality delays NAAQS achievement because slower fleet turnover offsets any expected emissions improvements in NOx or PM2.5, then ACC II is not "needed" to address compelling and extraordinary conditions.

[182] 87 FR at 14358-14367. EPA also received similar comment in the context of its HD ACT waiver proceeding and responded to such comments. EPA incorporates the relevant reasoning from that action, 88 FR at 20699-20704.

EPA's 2008 GHG waiver denial and subsequent 2009 GHG waiver decision, the 2013 ACC I waiver, and the 2023 HD ACT waiver.[183] These actions continue a longstanding and consistent (with the rare exceptions as noted above) record of EPA's reasoned support for the traditional interpretation that dates back to actions roughly contemporaneous with the 1967 and 1977 Amendments.

CAA section 209(b)(1) requires California to base its protectiveness determination on its "standards . . . in the aggregate." Section 209(b)(1)(B)'s directive that EPA must consider whether "*such* State standards" are needed "to meet compelling and extraordinary conditions," (emphasis added), therefore is likewise best understood to refer to the standards in the aggregate. Because the state standards just mentioned in paragraph (b)(1) have an aggregate character, "such State standards" in section 209(b)(1)(B) have the same aggregate character.

In response to commenters' argument that the reference to "in the aggregate" determination in first prong implies an intent that the second and third prong should not consider standards in the aggregate, we note that this reading would disregard the word "such" in both the second and third prongs. Consistent with the usual purpose of that word, the use of "such" in the second and third prongs establishes a connection with "standards . . . in the aggregate." Just as importantly, interpreting the second prong to require standard-by-standard review as urged by commenters would create an irreconcilable conflict in the statutory text. Under the commenters' interpretation, if each standard must be demonstrated to be individually needed, it would presumably follow that such a demonstration would not be possible for a State standard less stringent than the federal counterpart. It is impossible to reconcile an examination of the

[183] 74 FR 32744 (July 8, 2009) (GHG waiver for CARB's first light—duty GHG standards); 78 FR 2211 (January 8, 2013) (ACC I waiver); 87 FR 14332 (March 14, 2022) (SAFE I reconsideration and reinstatement of ACC I waiver for ZEV and GHG); 88 FR 20688 (April 6, 2023) (Heavy-Duty Advanced Clean Truck waiver).

effectiveness of each standard under the second prong with the clear Congressional intent to allow an evaluation of the protectiveness of State standards "in the aggregate" under the first prong. As EPA noted in the most recent CAA section 209 waiver action,[184] this interpretation would foreclose exactly the sort of technological "tradeoff" between pollution controls that was the genesis of the "in the aggregate" language in the statute.

The interrelated interpretations of the first and second prong also demonstrate the flaw in commenters' arguments asserting that, in order for the State's standards to be "needed" within the meaning of the second prong, those standards must achieve some quantum of emissions reductions benefit. To begin with, this argument presupposes a standard-by-standard approach, which as noted above is irreconcilable with the statute's directive that protectiveness be determined "in the aggregate." It also rests on a strained and unconventional meaning of what constitutes a "need," positing that relief from a problem is "needed" only if it resolves the problem to a certain degree. The D.C. Circuit has rejected this view of the second prong, stating "[t]here is no indication in either the statute or the legislative history that … the Administrator is supposed to determine whether California's standards are in fact sagacious and beneficial," and noting, "since the inception of the waiver program," EPA has established that the magnitude of air quality improvement is "not legally pertinent … under section 209."[185]

Limiting waivers in the manner suggested by commenters would create an illogical result: the more intractable California's air quality problem, the less authority the State would have to address it. But the fact that pollutant reductions, including greenhouse-gas reductions, may appear small compared to the enormity of the problem does not render reduction efforts

[184] 88 FR 20699.
[185] *Ford*, 606 F.2d at 1302.

meaningless or inessential. It is ordinary English to say some effort is "needed" to "meet" a problem if that effort contributes to the solution. The Supreme Court has already affirmed as much with respect to motor-vehicle greenhouse-gas emissions, validating states' legitimate interest in "small incremental step[s]" to combat climate change even where they do not resolve the underlying problem.[186] And in any event, Congress intended California's program to drive innovation; incremental efforts to address vehicle emissions are "needed" now to potentially enable greater reductions in the future. This is inherent in the nature of serious air quality problems, including criteria pollutant and GHG emissions, and the solutions require differing approaches and gradual progress.

Regarding the commenters' argument that section 177's limitation to states that have non-attainment plans implies that section 209 waivers are limited to criteria pollutant standards, as well as commenters' argument that the "in the aggregate" language was added specifically to address criteria pollutant problems and so should be limited to those, we begin by noting that even if valid these arguments would have no relevance to the ZEV standard, which will reduce criteria pollutants. However, the commenters' arguments are not persuasive. Section 209 does not mention specific pollutants at all much less limit the range of pollutants for which standards may be waived. Even if Congress had a particular pollution problem in mind in enacting the section 209 waiver provision (an inference that cannot be drawn from the language of the provision), this would not preclude its application to other situations that fall within the meaning of text.[187]

[186] *Massachusetts v. EPA*, 549 U.S. at 524-26; 87 Fed. Reg. at 14366 n.322.
[187] See *Bostock v. Clayton Cty., Georgia*, No. 17-1618, 2020 WL 3146686, at *14 (U.S. June 15, 2020) (The fact that a statute can be applied in situations not expressly anticipated by Congress does not demonstrate ambiguity; it demonstrates breadth).

EPA notes that each of the regulations (LEV IV working in coordination with the ZEV requirements) contained in the waiver request from CARB is clearly designed to reduce emissions of criteria pollutants and will have that effect, regardless of whether the ZEV requirements also reduce greenhouse gases.[188] As such, these standards are not categorically different than all prior standards addressing criteria emissions that EPA has found to satisfy the CAA section 209(b)(1)(B) inquiry. In any case, the section 209(b) waiver criteria do not distinguish amongst regulated pollutants, so there is no statutory basis to suggest that GHG emissions should be treated any differently.

CARB's second prong analysis begins by analyzing the ACC II standards collectively (i.e., not as separate ZEV and LEV IV standards) in the context of its complete mobile source program. EPA agrees with CARB that this approach is the most consistent with the traditional interpretation. In agreement with CARB, EPA has considered the protectiveness of both elements of ACC II together in context with CARB's entire "program" of emissions control and the related need of the program under the second waiver criterion.

Although EPA disagrees with commenters who assert that the ZEV and LEV IV standards should be evaluated separately under the second prong, following the commenters' suggested

[188] The ACC II standards are projected to reduce emissions in California by 30.4 tons per day of NOx, 2.0 tons per day of PM2.5, and 58.4 million metric tons per year of GHGs by 2040. Waiver Request Support Document at 3. In calendar year 2035, when the ZEV component of the ACC II regulations will require all new passenger cars and light-duty trucks delivered for sale in California to be zero-emission, with a limited allowance for plug-in hybrid electric vehicles (PHEVs), the ZEV Regulation will displace the emissions from conventional vehicles with internal combustion engines and their associated upstream fuel production by: 4,848 tons of oxides of nitrogen (NOx) exhaust emissions, including 1,080 tons of upstream and 3,767 tons from downstream emissions, 3,629 tons of reactive organic gases (ROG) total emissions, including exhaust and evaporative emissions that contribute to smog-forming ozone and cancer, and 389 tons of fine particulate matter (PM2.5) emissions, including 119 tons of upstream and 271 tons from downstream emissions that contribute to asthma and premature deaths. In 2035, the LEV IV Regulations that apply to vehicles with internal combustion engines will also avoid an additional: 869 tons of NOx exhaust emissions, and 526 tons of ROG total emissions, including exhaust and evaporative emissions that contribute to smog-forming ozone and cancer. Waiver Request Support Document at 39-40. *See also* attachment 12 to the Waiver Request Support Document.

approach would not change the conclusion. This is because, as noted above, ZEV and LEV IV standards both reduce criteria pollutant emissions. CARB's use of a ZEV provision dates back to 1990, when the purpose of the ZEV program was focused on criteria pollutants. Since that time, as addressing climate change has become an increasing focus for California, the State has increasingly emphasized on the GHG-reducing benefits of the ZEV program. To the extent commenters argue that the State's efforts to describe and analyze the GHG-reducing benefits of the ZEV program somehow diminishes the criteria pollutant-reducing benefits, EPA disagrees, and notes that these commenters fail to develop this argument factually or otherwise. The State's ZEV program continues to be effective at reducing criteria pollutants by replacing vehicles that emit exhaust that causes criteria pollutants with vehicles that do not.[189]

California continues to experience compelling and extraordinary conditions that cause it to need a separate motor vehicle emissions program. These include geographical and climatic conditions (like thermal inversions) that, when combined with large numbers and high concentrations of automobiles, create serious air pollution problems.[190] For example, as stated in CARB's waiver request and additional written comment, California and particularly the South Coast and San Joaquin Valley Air Basins continue to experience some of the worst air quality in the nation and continue to be in nonattainment with several NAAQS. In the context of these serious and long-lasting pollution challenges, California has demonstrated that every reduction in ozone precursor and particulate emissions is critical.

A commenter contended that conditions in California are not compelling and extraordinary within the meaning of the statute because only two areas in the State (the South

[189] Waiver Request Support Document, pp.39-41.
[190] Waiver Request Support Document, p.36.

Coast and the San Joaquin Valley) have what the commenter would consider serious air quality issues.[191] EPA believes this commenter misses the mark for several reasons. The commenter provided no legal rationale for limiting the ''compelling and extraordinary conditions'' to those conditions experienced in every geographic area of California. Nor does the commenter address how areas of the state other than the South Coast and San Joaquin that are designated non-attainment should be considered in assessing whether conditions are, overall, compelling, and extraordinary. As CARB notes, California has six of the ten cities that suffer the worst ozone pollution in the nation and seven with the worst particulate pollution.[192] In addition, California is responsible, in part, for developing State Implementation Plan (SIP) measures to address nonattainment and maintenance in the South Coast, the San Joaquin Valley, and many other ozone and PM2.5 areas across the State, and EPA sees no basis to deny a waiver for regulations designed at the state level and that address mobile emission sources that may traverse the state.[193] Nor has the commenter provided sufficient data or analysis to demonstrate that other areas of California do not need the motor vehicle standards program to address compelling and extraordinary conditions.

Based on the record, EPA is unable to identify any change in circumstances or any evidence to undermine EPA's prior factual findings that California needs its motor vehicle

[191] TPPF.
[192] Waiver Request Support Document, p.36.
[193] For informational purposes, EPA notes that ACC II's focus on increasing access to ZEVs will also help reduce pollution inequities and serve environmental justice. Health benefits will particularly bring relief to community members in close proximity to high-traffic areas with a majority of the benefits in five major air basins - the San Francisco Bay, San Diego, South Central Coast, San Joaquin Valley, and the South Coast. California is the only state in the U.S. to have two areas designated as extreme nonattainment for ozone found in the latter two air basins. San Joaquin Valley and the South Coast are also designated as serious nonattainment for PM2.5. California has six of the ten cities that suffer the worst ozone pollution in the nation and seven with the worst particulate pollution. California is especially prone to harmful ozone because it has so much of the three ingredients: stagnant air caused by topography, sunshine, and significant populations of people burning fuel.

emissions program to address compelling and extraordinary conditions. Therefore, using the traditional approach of reviewing the need for a California mobile source program to meet compelling and extraordinary conditions, EPA finds that such conditions continue to exist. Further to the extent that it is appropriate to examine the need for CARB's individual light-duty vehicle and engine standards individually to meet compelling and extraordinary conditions, EPA finds that the opponents of the waiver requests have not met their burden of proof that California does not need these standards. As noted above, the record demonstrates that each regulation will produce reductions in criteria emissions that continue to be a serious air quality concern in California.[194]

Some commenters asserted or implied that CARB relied inappropriately on upstream emissions reductions (for instance, by reduced production at refineries) to demonstrate a need for the ZEV standards. These comments are both misplaced and incorrect.[195] Any such assertion would mischaracterize CARB's explanation under the second prong. CARB is clear in its waiver request that the reduction in emissions from the class of motor vehicles is sufficient to establish there is a need for California's motor vehicle program or, if the alternative interpretation were applied such that each standard is evaluated individually, for the ZEV standards.[196] As noted previously, the ZEV requirements are to be phased-in through the 2035 model year (and then maintained at the 2035 MY levels thereafter) and thus will result in a reduction of emissions of criteria pollutants from the class of motor vehicles during the phase-in and beyond. Though

[194] Waiver Request Support Document, pp.9–22; CARB Public Hearing Response, pp.2–3; States and Cities, pp.5–7; Supplemental Comments, pp.19–24.
[195] AFPM, p.10; API, p.8; Illinois Corn Growers, p.22.
[196] Waiver Request Support Document, pp.38-40.

CARB notes that upstream emission reductions will also occur, nowhere does CARB characterize upstream reductions as either necessary or sufficient to justify the waiver request.[197]

As noted, the LEV IV and ZEV regulations will both have the effect of reducing criteria pollutant emissions and therefore are needed to address compelling and extraordinary conditions related to criteria pollutant emissions. CARB has also explained that, by reducing GHG emissions, the ZEV standards will address climate change conditions in California, and that these conditions are compelling and extraordinary. EPA notes that the record contains evidence that global warming continues to pose an extraordinary threat to the economic well-being, public health, natural resources, and environment in California. These adverse impacts include exacerbation of local air quality problems, severe wildfires, extreme drought, acidification threats to marine ecosystems as carbon dioxide is absorbed by the ocean along California's coastline, and a host of other impacts. EPA believes the same conditions and impacts assessed in prior waiver decisions apply to this waiver decision and incorporates that analysis here.[198]

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[197] As explained herein, the requirements in the ACC II program were designed to work together in terms of the technologies that would be used to both lower criteria emissions and GHG emissions. The standards, including the ZEV sales standards, were designed to address the short- and long-term air quality goals in California in terms of the criteria emission reductions along with GHG emission reductions. The air quality issues and pollutants addressed in the ACC II program are interconnected in terms of the impacts of climate change on local and regional air quality concerns such as ozone exacerbation and climate effects on wildfires.

[198] EPA notes that in the SAFE I Reconsideration decision (87 FR 14332, 14363-14367) contains a full discussion of the criteria emission benefits from CARB's ACC program for ZEV and GHG standards as well as the benefits of addressing the climate change impacts within California. *See also* EPA's ACC waiver decision (79 FR 2112) at 2129: "To the extent that it is appropriate to examine the need for CARB's GHG standards to meet compelling and extraordinary conditions, as EPA discussed at length in its 2009 GHG waiver decision, California does have compelling and extraordinary conditions directly related to regulations of GHG." EPA's prior GHG waiver contained extensive discussion regarding the impacts of climate change in California. In addition, CARB has submitted additional evidence in comment on the ACC II regulations waiver request that demonstrates compelling and extraordinary climate change circumstances in California. CARB notes that "Record-setting fires, deadly heat waves, destructive storm surges, loss of winter snowpack—California has experienced all of these in the past decade and will experience more in the coming decades. California's climate— much of what makes the state so unique and prosperous—is already changing, and those changes will only accelerate and intensify in the future. Extreme

As noted above, EPA believes that evaluation under each of the three waiver criteria should be of CARB's whole mobile source program. In response to commenters who contend that the whole program approach would allow CARB to obtain a waiver for any emission standard, even those that are unrelated to reducing motor vehicle emissions, EPA disagrees that it would be compelled to waive preemption in such a situation, but also notes that the commenters provide no realistic example of such a scenario that has arisen or could arise, much less that the ACC II regulations present one. For one thing, EPA recognizes CARB's authority to adopt numerous emission standards which do not require any waiver of preemption at all, because many State and local emission standards are not preempted by Federal law.[199] In EPA's 2009 GHG waiver that reconsidered the 2008 GHG waiver denial, EPA also noted that "Given the comments submitted, however, EPA has also considered an alternative interpretation, which would evaluate whether the program or standards has a rational relationship to contributing to amelioration of the air pollution problems in California."[200] As EPA noted in 2009, a rational relationship test could potentially be appropriate if, hypothetically, California submitted a waiver request for a standard that is preempted yet far afield of motor vehicle emission reductions or directional improving California's air pollution problems. However, the ACC II waiver request does not present such a situation.

Regarding the comment that the fuels regulation waiver in CAA section 211(c)(4)(B) shows that Congress was explicit in addressing the availability of a waiver for an entire program

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weather will be increasingly common as a result of climate change. In California, extreme events such as floods, heat waves, droughts and severe storms will increase in frequency and intensity. Many of these extreme events have the potential to dramatically affect human health and well-being, critical infrastructure and natural systems." CARB provides a summary report on the third assessment from the California Climate Change Center (2012) which describes dramatic sea level rises and increases in temperatures.

[199] See CAA section 116.

[200] 74 FR at 32766 (citing to *Motor & Equip. Mfrs. Ass'n, Inc. v. EPA,* 627 F.2d 1095, 1110–11 (D.C. Cir. 1979)).

where it intended that result, EPA concludes the commenter's comparison to section 209(b)(1)(B) is inapt. The commenter attempts to draw conclusions from comparison of two very differently designed waiver provisions. The fuels waiver provision of section 211(c)(4)(B) does not depend on an administrative finding by EPA with regard to whether the State needs such standards to meet compelling and extraordinary conditions. There was thus no reason for Congress to address how such an evaluation should occur, i.e., whether by comparing individual standards or an entire program.

As noted above, commenters raised the equal sovereignty doctrine both to argue that CAA section 209 categorically violates this doctrine, but also to argue, in the alternative, that section 209 must be interpreted in a way that avoids conflict with the doctrine. The latter argument is specifically raised to suggest that interpreting "compelling and extraordinary" in a way that includes the effects of climate change would run afoul of the equal sovereignty doctrine.[201] EPA again notes that the review of CARB's waiver requests is limited to the criteria set forth in section 209 and that we need not engage in the Equal Sovereignty constitutional law analysis. Here, because the commenters link a constitutional argument to a question of statutory interpretation, we respond regarding the latter.

We note again in this context that the ZEV standard requires reductions of and will reduce both criteria pollutant-causing emissions and GHGs by the same mechanism; by replacing ICE vehicles with ZEVs. Arguments that the ZEV standard must be analyzed as a GHG-reducing measure therefore rely on a faulty premise. Some commenters raising equal sovereignty arguments appear to focus those arguments exclusively on the GHG-reducing effects of the ZEV

[201] Ohio AG, p.9; Illinois Corn Growers, p.31.

standard, ignoring the concomitant criteria pollutant-reducing effects.[202] To the extent the commenters' equal sovereignty arguments hinge on this premise, these arguments therefore fail.

One commenter that focused its equal sovereignty argument on criteria pollutant-reducing effects relied on the premise that California no longer suffers from serious local and regional air pollution impacts.[203] As noted above, EPA, after careful consideration and application of its agency expertise, makes the factual finding that this assertion is not supported by the record.

To the extent that commenters more generally claim that Equal Sovereignty principles require "compelling and extraordinary conditions" to be interpreted in a way that gives those terms something other than their ordinary meaning, EPA disagrees. Congress struck a reasonable balance in allowing California to exercise its state police powers to have a separate motor vehicle program if certain criteria are met. Congress designed within the CAA section 209(b)(1)(B) a mechanism for continual reevaluation of whether California continues to "need" its separate status. So, while the conditions in California that led Congress to create a preemption exception do, in fact, remain in place today, the State will become ineligible for a waiver whenever it no longer has a "compelling and extraordinary" need for its own program. Though there is nothing to suggest that the Supreme Court's holding in *Shelby County v. Holder* that Fifteenth Amendment legislation be "sufficiently related to the problem it targets"[204] applies to Congress' exercise of Commerce Clause authority in CAA section 209(b),[205] it is notable that CAA section

[202] *See, e.g.*, Ohio AG, p.9 ("California seeks special treatment for its proposed greenhouse gas targets and zero emission vehicle mandate designed to mitigate climate change—an inherently global interest."); Institute for Energy Research, EPA-HQ-OAR-2023-0292-0225.
[203] Illinois Corn Growers, at 29-31.
[204] 570 U.S. 529, 550–51 (2013).
[205] *See Ohio*, 98 F.4th at 308.

209(b) is designed to have application only so long as it is "related to the problem it targets." We therefore find unpersuasive the argument that the Equal Sovereignty doctrine should affect the interpretation of "compelling and extraordinary conditions."[206] EPA further addresses the commenter's concerns relating to the Equal Sovereignty doctrine in Section IV.D.

To the extent commenters contend the major questions doctrine should affect interpretation of the second prong, EPA disagrees. In Section IV.A below, we explain why, as a threshold matter, the major questions doctrine is not applicable in the context of a CAA section 209 waiver. While that explanation is made in the context of the third prong, it applies equally to all of section 209. Furthermore, as explained above, the language of section 209(b) provides a clear directive to EPA regarding the manner in which EPA must evaluate whether there is "a need for such standards to address compelling and extraordinary conditions." With rare exceptions, EPA has held the same interpretation of the second prong for decades. As is true for the third prong, the first and second prongs do not present a situation where EPA is relying on "oblique or elliptical language" to accomplish a "radical or fundamental change to a statutory scheme,"[207] and therefore do not implicate the concerns underlying the major questions doctrine.

5. Section 209(b)(1)(B) Conclusion

For the reasons set forth above, EPA continues to believe that the traditional interpretation of the CAA section 209(b)(1)(B) criterion is the best reading of the statute. Applying the traditional approach of assessing California's need for a separate motor vehicle emissions program to address compelling and extraordinary conditions, EPA finds California's serious air quality conditions (including its criteria pollutant conditions) to be compelling and

[206] *MEMA I*, 627 F.2d at 1113.
[207] *West Virginia v. EPA*, 597 U.S. 697, 723 (2022).

extraordinary and believes CARB's program is designed to address such conditions. EPA also believes it appropriate to provide appropriate deference to California in its policy choices in designing its' mobile source emission program. CARB has repeatedly demonstrated the need for its motor vehicle program to address compelling and extraordinary conditions in California and opponents of the waiver requests have not demonstrated that California does not need its state standards to meet compelling and extraordinary conditions. Based on the record, the opponents of the waiver have not met their burden of proof to demonstrate that California no longer has compelling and extraordinary conditions. Therefore, EPA cannot deny the ACC II regulations waiver request under its traditional interpretation of section 209(b)(1)(B).

In addition, although EPA does not believe an interpretation that requires a demonstrated need for a specific standard is appropriate, EPA's review of the complete record indicates that opponents of the waiver requests have not met the burden of proof necessary to demonstrate that California does not need each of the standards in the ACC II regulations, including the LEV IV and ZEV standards, when assessed individually for purposes addressing the compelling and extraordinary conditions associated with both criteria air pollutants, and GHG emissions. EPA specifically makes the factual finding that the ZEV standard (as well as the LEV IV standard), as a criteria pollutant-reducing measure, is needed to meet compelling and extraordinary conditions in the State with regard to criteria pollutants. Therefore, EPA cannot deny the ACC II regulations waiver request under section 209(b)(1)(B), even if EPA were to adopt the interpretation advanced by the adverse comments.

C. *Third Waiver Criterion: Are California's ACC II Regulations Consistent with Section 202(a) of the Clean Air Act?*

Under CAA section 209(b)(1)(C), EPA must grant California's waiver request unless EPA finds that California's standards and accompanying enforcement procedures are not consistent with CAA section 202(a). EPA's longstanding approach to the third waiver criterion is limited to reviewing California's feasibility assessment and evaluating whether the opponents of the waiver have met their burden of establishing: (1) That California's standards are technologically infeasible in the lead time provided, giving appropriate consideration to the costs of compliance, or (2) that California's test procedures are inconsistent with the Federal test procedures.

CARB's waiver request contained a demonstration that its standards were based on technologies currently available or reasonably projected to be available in the lead time provided, giving consideration to costs,[208] and that its standards and requirements are therefore consistent with CAA section 202(a) requirements. CARB's waiver request included their state rulemaking records for each standard, including CARB's detailed responses to any issues raised regarding technological feasibility.

EPA received only supportive comments regarding feasibility of the LEV IV standards and test procedures with commenters attesting to the feasibility of the LEV IV standards within the lead time provided based on the use of currently available technologies.

Numerous commenters supported the feasibility of the ZEV requirement, including by explaining that ZEV technologies are commercially available, and that they can be further

[208] "Such technologies are already in use by many manufacturers, are presently commercially available at reasonable costs (and those costs are projected to continue to decline), and many manufacturers have made public commitments to develop and deploy further technologies that may be necessary to meet the ACCII standards." Waiver Request Support Document at 45.

deployed at a reasonable cost within the lead time provided. Commenters opposed to the ZEV requirements within the ACC II regulations raised several issues. First, commenters questioned EPA's traditional interpretation of the third waiver criterion, contending that consistency with CAA section 202(a)(1) means the State is limited to adopting regulations that EPA can adopt and that section 202(a)(1) does not authorize EPA to require use of ZEV technology. In addition, commenters asserted that the third prong requires consideration of factors beyond EPA's historical approach to considering vehicle emission control and costs of the controls. Commenters assert EPA must also consider factors such as marketability, consumer acceptance, grid reliability and charging infrastructure. Commenters also claimed that EPA's review must include a cost-benefit analysis.

As noted, EPA's longstanding approach to this third waiver criterion has been limited to reviewing California's feasibility assessment and evaluating whether the opponents of the waiver have met their burden of establishing that California's standards are technologically infeasible, or that California's test procedures are inconsistent with the Federal test procedures.[209] EPA's review has been consistently narrow and deferential to California.[210] EPA considers the consistency prong in the context of the "discretion given to California in dealing with its mobile source pollution problems."[211]

[209] 88 FR at 20704; 78 FR at 2132 (explaining EPA's longstanding analysis of this third waiver criterion).
[210] 88 FR 20707; 78 FR 2115, 2132.
[211] 49 FR 18892 ("Ultimately, I conclude that Congress left to California the policy choice that its standards might result m some reduction of model availability for its citizens. I cannot lightly overturn California's judgment that some sacrifice in model availability is worth the benefits of reduced exposure to particulates. If the manufacturers "dislike the substance of the CARB's regulations * * * then they are free to challenge the regulations in the state courts of California." *MEM*A, supra, 627 F.2d. at 1105. The scope of my review of whether California's action is consistent with section 202(a) is narrow; it is limited to determining whether those opposed to the waiver have met their burden of establishing that California's standards are technologically infeasible. *Id.* at 1126."), *see also* 78 FR 2133. 87 FR at 18892.

Adhering to the best reading of the statute, and consistent with our longstanding interpretation of the third prong, EPA does not agree with comments arguing that a standard is not eligible for a waiver unless EPA could adopt the same standard pursuant to its CAA section 202(a) authority. Moreover, even if this interpretation is accepted, it would not prevent a waiver for the ACC II regulations (including the ZEV standards). Further, under our traditional interpretation, we find that California has demonstrated the feasibility of the ZEV standards. In EPA's SRTC included in the docket for this waiver decision, we also explain why, even if the broader set of extra statutory factors addressed by commenters are considered, opponents of the waiver have not demonstrated by a preponderance of the evidence that the ZEV standards are not feasible. The EPA SRTC that discusses the non-germane comments received is incorporated by reference in this Notice of Decision.[212]

This section begins with a discussion of EPA's traditional approach to the third waiver criterion and relevant case law (Section III.C.1). We then summarize CARB's position supporting feasibility from its Waiver Request Support Document (Section III.C.2). Next, we summarize and respond to comments received during EPA's public comment process on consistency with CAA section 202(a) (Sections III.C.3 and III.C.4). Subsequently, we evaluate the LEV IV and ZEV requirements under the traditional approach, finding that those opposed to the waiver have failed to meet their burden of proof (Section III.C.5). A brief conclusion follows (Section III.D).

1. EPA's Traditional Interpretation of Section 209(b)(1)(C)

[212] EPA SRTC.

Under CAA section 209(b)(1)(C), EPA must grant California's waiver request unless EPA finds that California standards and accompanying enforcement procedures are "not consistent" with CAA section 202(a).[213] EPA has long limited its evaluation of whether California's standards are consistent with section 202(a) to a determination of whether opponents of the waiver have carried their burden of proof to show that (1) there is inadequate lead time to permit the development of the necessary technology giving appropriate consideration to the cost of compliance within that time period;[214] or (2) California and Federal test procedures are incompatible so that a single vehicle could not be subjected to both tests.[215] EPA has explained that "the import of section 209(b) is not that California and Federal standards be identical, but that the Administrator not grant a waiver of Federal preemption where compliance with the California standards is not technologically feasible within available lead time."[216] Further, EPA's

[213] Legislative history evidences an intent that EPA must grant a waiver request unless it finds that there is: ''[i]nadequate time to permit the development of the necessary technology given the cost of compliance within that time period.'' H. Rep. No. 728, 90th Cong., 1st Sess. 21 (1967). "That California standards are not consistent with the intent of section 202(a) of the Act, including economic practicability and technological feasibility, is narrow." S. Rep. No. 403, 90th Cong. 1st Sess. 32 (1967). CAA section 202(a)(2); H.R. Rep. No. 95–294, 95th Cong., 1st Sess. 301 (1977) ("Also preemption could not be waived if California standards and enforcement procedures were found not to be 'consistent with section 202(a)' (relating to the technological feasibility of complying with these standards).").

[214] Since the earliest days of the Act, previous waivers of Federal preemption have consistently stated that California's standards are not consistent with section 202(a) if there is inadequate lead time to permit the development of technology necessary to meet those requirements, giving appropriate consideration to the cost of compliance within that time. See e.g., 36 FR 8172 (April 30, 1971) (HD MY 1972 and later MY); 38 FR 30136 (Nov. 1, 1973); 40 FR 23102, 23105 (May 28, 1975) (extending waiver of April 30, 1971, to MY 1975 HD standards); 40 FR 30311 (July 18, 1975); 70 FR 50322 (August 26, 2005) (2007 California Heavy-Duty Diesel Engine Standards); 71 FR 335 (Jan. 4, 2006) (2007 Engine Manufacturers Diagnostic standards); 77 FR 9239 (February 16, 2012) (HD Truck Idling Requirements); 79 FR 46256 (Aug. 7, 2014) (the first HD GHG emissions standard waiver, relating to certain new 2011 and subsequent model year tractor-trailers); 81 FR 95982 (December 29, 2016) (the second HD GHG emissions standard waiver, relating to CARB's ''Phase I'' regulation for 2014 and subsequent model year tractor-trailers); 82 FR 4867 (January 17, 2017) (On-Highway Heavy-Duty Vehicle In-Use Compliance Program).

[215] To be consistent with "(2)" in terms of consistent test procedures, the California certification procedures need not be identical to the Federal certification procedures. California procedures would be inconsistent, however, if manufacturers would be unable to meet the state and the Federal requirements with the same test vehicle in the course of the same test. See, e.g., 43 FR 32182 (July 25, 1978).

[216] 46 FR 22032, 22034–35 (April 15, 1981).

review is limited to the record on feasibility of the technology. Therefore, EPA's review is narrow and does not extend to whether the regulations under review are the most effective or whether the technology incentivized by California's regulations are the best policy choice, or whether better choices should be evaluated. The Administrator has thus long explained that "questions concerning the effectiveness of the available technology are also within the category outside my permissible scope of inquiry," under CAA section 209(b)(1)(C).[217]

In determining whether the lead time is sufficient, EPA considers whether requisite technology is already in existence and in use. If technology is not presently available, EPA will consider whether there is adequate lead time for the development and application of requisite technology prior to the effective date of the standards for which a waiver is being sought. Additionally, the D.C. Circuit has held that:

> [i]n the waiver context, section 202(a) relates in relevant part to technological feasibility and to federal certification requirements. The technological feasibility component of section 202(a) obligates California to allow sufficient lead time to permit manufacturers to develop and apply the necessary technology. The federal certification component ensures that the Federal and California test procedures do not impose inconsistent certification requirements. Neither the court nor the agency has ever interpreted compliance with section 202(a) to require more."[218]

When cost is at issue EPA evaluates the cost of developing and implementing control technology in the actual time provided by the applicable California regulations. The D.C. Circuit has stated that compliance cost ''relates to the timing of a particular emission control regulation."[219] In *MEMA I*, the court addressed the cost of compliance issue at some length in reviewing a waiver decision. According to the court:

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[217] 41 FR 44209, 44210 (October 7, 1976); 47 FR 7306, 7310 (February 18, 1982) (''I am not empowered under the Act to consider the effectiveness of California's regulations, since Congress intended that California should be the judge of 'the best means to protect the health of its citizens and the public welfare.''' (Internal citations omitted)).
[218] *MEMA II,* 142 F.3d 449, 463 (internal citations omitted).
[219] *MEMA I*, 627 F.2d. at 1118.

> Section 202's cost of compliance concern, juxtaposed as it is with the requirement that the Administrator provide the requisite lead time to allow technological developments, refers to the economic costs of motor vehicle emission standards and accompanying enforcement procedures. See S. Rep. No. 192, 89th Cong., 1st Sess. 5–8 (1965); H.R. Rep. No. 728 90th Cong., 1st Sess. 23 (1967), reprinted in U.S. Code Cong. & Admin. News 1967, p.1938. It relates to the timing of a particular emission control regulation rather than to its social implications. Congress wanted to avoid undue economic disruption in the automotive manufacturing industry and also sought to avoid *doubling or tripling* the cost of motor vehicles to purchasers. It, therefore, requires that the emission control regulations be technologically feasible within economic parameters. Therein lies the intent of the cost of compliance requirement.[220]

Previous waiver decisions are fully consistent with *MEMA I,* which indicates that the cost of compliance must reach a very high level before the EPA can deny a waiver. That is, the costs must be excessive to find that California's standards are infeasible and therefore inconsistent with CAA section 202(a).[221]

The scope of EPA's review under this criterion is narrow.[222] This is consistent with the motivation behind CAA section 209(b) to foster California's role as a laboratory for motor vehicle emission control, in order "to continue the national benefits that might flow from allowing California to continue to act as a pioneer in this field."[223] According to the D.C. Circuit, "The history of congressional consideration of the California waiver provision, from its original enactment up through 1977, indicates that Congress intended the State to continue and expand its pioneering efforts at adopting and enforcing motor vehicle emission standards different from and in large measure more advanced than the corresponding federal program; in short, to act as a

[220] *MEMA I*, 627 F.2d at 1118 (emphasis added). *See also id.* at 1114, n.40 (''[T]he 'cost of compliance' criterion relates to the timing of standards and procedures.'').
[221] *See, e.g*., 47 FR 7306, 7309 (Feb. 18, 1982); 43 FR 25735 (Jun. 14, 1978); 46 FR 26371, 26373 (May 12, 1981).
[222] 41 FR 44208, 44210 (October 7, 1976) (''While section 209(b) requires consideration of whether the adoption of standards by California is consistent with section 202(a), nevertheless [the Administrator's] discretion in determining whether to deny the waiver is considerably narrower than [his] discretion to act or not to act in the context promulgating Federal standards under section 202(a).'')
[223] 40 FR 23102, 23103 (May 28, 1975) (waiver decision citing views of Congressman Moss and Senator Murphy).

kind of laboratory for innovation."[224] EPA has thus long believed that California must be given substantial deference when adopting motor vehicle emission standards because such action may require new or improved technology to meet challenging levels of compliance. Over 50 years ago, EPA's Administrator discussed this deference in an early waiver decision that approved a waiver request for California:

> There is a well-established pattern that emission control technology has been phased in through use in California before their use nationwide. This pattern grew out of early recognition that auto-caused air pollution problems are unusually serious in California. In response to the need to control auto pollution, California led the nation in development of regulations to require control of emissions. This unique leadership was recognized by Congress in enacting federal air pollution legislation both in 1967 and 1970 by providing a special provision to permit California to continue to impose more stringent emission control requirements than applicable to the rest of the nation.[225]

In a subsequent waiver decision approving a waiver request for California, the Administrator stated:

> It is worth noting . . . I would feel constrained to approve a California approach to the problem which I might also feel unable to adopt at the federal level in my own capacity as a regulator. The whole approach of the Clean Air Act is to force the development of new types of emission control technology where that is needed by compelling the industry to ''catch up'' to some degree with newly promulgated standards. Such an approach * * * may be attended with costs, in the shape of a reduced product offering, or price or fuel economy penalties, and by risks that a wider number of vehicle classes may not be able to complete their development work in time. Since a balancing of these risks and costs against the potential benefits from reduced emissions is a central policy decision for any regulatory agency under the statutory scheme outlined above, I believe I am required to give very substantial deference to California's judgments on this score.[226]

[224] *MEMA I*, 627 F.2d 1095, 1110. *See also Ohio v EPA*, 98 F.4th at 295.
[225] 38 FR 10317, 10324 (April 26, 1973) (''[T]he experience of Federal and State officials as well as the industry itself in meeting such standards for California will facilitate an orderly implementation of the more stringent, catalyst-forcing standards for California.'').
[226] 40 FR 23102, 23104 (May 28, 1975). *See also* 78 FR 2111, 2115–16 (Jan. 9, 2013); 79 FR 46256, 46258 (Aug. 7, 2014); 81 FR 95982, 95984 (Dec. 29, 2016). 88 FR 20688 (April 6, 2023).

In keeping with this deferential posture, as noted earlier, EPA's traditional interpretation of CAA section 209(b) has also been to assess whether California's program of motor vehicle emission standards as a whole is consistent with section 202(a). EPA's long-standing interpretation is that the phrase "State standards" in section 209(b)(1) means the entire California new motor vehicle emissions program.[227] Similar to the first and second waiver criteria, EPA has also historically viewed the third waiver criterion's feasibility analysis as including a whole-program assessment, that is, one that ensures manufacturers have sufficient lead time to comply with the program's standards as a whole, accounting for the interactions between technologies necessary to meet both new and existing standards, and any interactions between those technologies that would affect feasibility.[228] EPA's assessment under section 209(b)(1)(C) thus in practice considers the feasibility of each standard standing alone but also in the context of the entire program, building on prior analyses of feasibility and any impacts of the new standards on the feasibility of the remainder of the program.[229]

EPA has also long recognized that the laboratory role and nature of California's standards may result in California amending or revising requirements after the grant of a waiver, or otherwise adjusting the implementation of the waived standards as circumstances dictate.[230]

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[227] 74 FR 32744, 32749 (July 8, 2009); 70 FR 50322 (Aug. 26, 2005); 77 FR 9239 (Feb. 16, 2012); 78 FR 2112, 2123 (Jan. 9, 2013).

[228] As a practical matter, EPA's consideration of the third waiver prong, like the first waiver prong, does not necessitate in every case that EPA rereview previously-approved aspects of California's program—for example, where it is evident that new standards will not interact with existing ones. But where a new waiver request might affect one of EPA's previous assessments under any of the waiver criteria, EPA reviews the program as a whole—or any aspect necessary to confirm alignment with the statutory text. 87 FR at 14361 and n.266.

[229] *Id*. at 14361. "EPA has thus long read both sub-provisions together so that the Agency reviews California's entire program for both protectiveness and feasibility. So, EPA's historic practice has been to conduct the technology feasibility analysis for CARB's standard under review as a whole-program assessment, i.e., one that ensures manufacturers have sufficient lead time to comply with the program's standards as a whole, accounting for the interactions between technologies necessary to meet both new and existing standards." 88 FR at 20718.

[230] *See e.g.*, 68 FR 19811 (April 22, 2003), 71 FR 78190 (December 28, 2006), 75 FR 44948 (July 30, 2006).

EPA's waiver practice when California amends a previously waived standard or accompanying enforcement procedure is to consider whether such an amendment is within the scope of a previously granted waiver or requires a new waiver. If EPA considers the amendment as within the scope of a prior waived standard, then EPA reviews the amendment to determine that it does not undermine California's determination that its standards in the aggregate are as protective of public health and welfare as applicable Federal standards, does not affect the regulation's consistency with CAA section 202(a), and raises no new issues affecting EPA's previous waiver decisions.

While EPA's review of consistency with CAA section 202(a) under the third prong does not require California to comply with section 202(a) in all respects,[231] decisions from the D.C. Circuit on Federal standard-setting under section 202(a) nonetheless provide informative guidance regarding its feasibility and lead time requirements.[232] For example, in *Natural Resources Defense Council v. EPA (NRDC)*, the court reviewed claims that EPA's PM standards for diesel cars and light-duty trucks were both too stringent and not stringent enough. In upholding the EPA standards, the court concluded:

> Given this time frame [a 1980 decision on 1985 model year standards]; we feel that there is substantial room for deference to the EPA's expertise in projecting the likely course of development. The essential question in this case is the pace of that development, and absent a revolution in the study of industry, defense of such a projection can never possess the inescapable logic of a mathematical deduction. We think that the EPA will have demonstrated the reasonableness of its basis for projection if it answers any theoretical objections to the [projected control technology], identifies the major steps necessary in refinement of the technology,

[231] See Section III.C. below.
[232] Section 202(a)(2) states that "any regulation prescribed under paragraph (1) of this subsection (and any revision thereof) shall take effect after such period as the Administrator finds necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."

and offers plausible reasons for believing that each of those steps can be completed in the time available.[233]

Another key case addressing the feasibility and lead time requirements of CAA section 202(a) is *International Harvester v. Ruckelshaus (International Harvester)*. In *International Harvester*, the court reviewed EPA's decision to deny applications by several automobile and truck manufacturers for a one-year suspension of the 1975 emission standards for light-duty vehicles. In the suspension proceeding, the manufacturers presented data which, on its face, showed little chance of compliance with the 1975 standards, but which, at the same time, contained many uncertainties and inconsistencies regarding test procedures and parameters. In a May 1972 decision, the Administrator applied an EPA methodology to the submitted data, and concluded that ''compliance with the 1975 standards by application of present technology can probably be achieved,'' and so denied the suspension applications.[234] In reviewing the Administrator's decision, the court found that the applicants had the burden of providing data showing that they could not comply with the standards, and if they did, then EPA had the burden of demonstrating that the methodology it used to predict compliance was sufficiently reliable to permit a finding of technological feasibility. In that case, EPA failed to meet this burden.

In *NRDC,* the court pointed out that the court in *International Harvester* "probed deeply into the reliability of EPA's methodology" because of the relatively short amount of lead time involved (a May 1972 decision regarding 1975 MY vehicles, which could be produced starting in early 1974), and "because the hardship resulting if a suspension were mistakenly denied outweigh[s] the risk of a suspension needlessly granted."[235] The *NRDC* court compared the

[233] *NRDC*, 655 F.2d 318, 331 (D.C. Cir. 1981).
[234] *International Harvester v. Ruckelshaus*, 478 F 2d. 615, 626 (D.C. Cir. 1979).
[235] *NRDC*, 655 F.2d 318, 330.

suspension proceedings with the circumstances concerning the diesel standards before it: "The present case is quite different; 'the base hour' for commencement of production is relatively distant, and until that time the probable effect of a relaxation of the standard would be to mitigate the consequences of any strictness in the final rule, not to create new hardships."[236] The *NRDC* court further noted that *International Harvester* did not involve EPA's predictions of future technological advances, but an evaluation of presently available technology.

2. CARB's Discussion of Consistency with Section 202(a) in the Waiver Request

In this section, we present a summary of CARB's arguments supporting feasibility made in its waiver request. CARB's Waiver Request Support Document provided information pertaining to consistency with CAA section 202(a)'s feasibility requirements for both the LEV IV standards and the ZEV standards. CARB evaluated the technological feasibility of the emission standards and accompanying enforcement procedures and concluded that the LEV IV and ZEV standards and accompanying enforcement procedures are feasible, within the lead time provided, with existing technologies that manufacturers will likely use to comply with the ACC II regulations beginning with the 2026 MY. CARB concluded that such technologies are already in use by many manufacturers, are currently commercially available at reasonable costs, and that those costs are projected to continue to decline. CARB further noted that many vehicle manufacturers have made public commitments to develop and deploy further technologies that will further facilitate compliance with the ACC II regulations. CARB's Waiver Request Support Document describes the technologies it believes manufacturers will likely utilize to comply with the ACC II emission standards and accompanying enforcement procedures.[237] CARB assessed

[236] *Id*. The ''hardships'' referred to are hardships that would be created for manufacturers able to comply with the more stringent standards being relaxed late in the process.
[237] Waiver Request Support Document, EPA-HQ-OAR-2023-0292-0034, p.45-57.

the costs of compliance to meet the ACC II regulations and found the costs to be reasonable.[238] CARB also evaluated the test procedures necessary to meet the ACC II standards and found no issue of inconsistency with section 202(a). Based on these findings, CARB concluded that the ACC II regulations requirements are consistent with section 202(a).

3. Comments on Consistency with Section 202(a)

EPA received a range of comments on CARB's ACC II waiver request relating to the third waiver criterion. In this section, EPA summarizes and responds to comments received on consistency with CAA section 202(a), including legal interpretation of "consistency with 202(a)," feasibility of and lead time for the technologies needed for the ACC II regulations—both the LEV IV and ZEV standards—and the associated costs as well as the effects on vehicle safety.

a. Legal Interpretation of "consistency with 202(a)"

Some commenters supported EPA's longstanding interpretation of the third waiver criterion, which calls for examination of whether the state standards are technologically feasible within the lead time provided giving due consideration to costs.[239] These commenters noted that this interpretation has been repeatedly affirmed by the DC Circuit and consistently held by EPA for many decades.

Commenters opposed to the waiver argue that EPA's longstanding interpretation of the third waiver is too narrow. One commenter asserted that a state standard must be "consistent in all respects" with CAA section 202(a).[240] Some commenters take the position that to be

[238] *Id* at 55-56.
[239] Rivian Automotive, LLC (Rivian), EPA-HQ-OAR-2023-0292-0166, p.2; Tesla, Inc. (Tesla), EPA-HQ-OAR-2023-0292-0197, p.1; CCAE, pp.6–7.
[240] API, p.3.

consistent with CAA section 202(a) the State standard must be one that EPA could itself adopt pursuant to that provision.[241]

One commenter noted that to the extent EPA's longstanding interpretation has relied on *MEMA I* and *MEMA II* that reliance is misplaced.[242] In the commenter's view, the D.C. Circuit Court's statements in those cases equating "consistency" review with a determination of technical feasibility is merely dicta and cannot be reconciled with the statutory language. The commenter reasoned that consistency with CAA section 202(a) cannot be construed to be limited to the requirement to evaluate technical feasibility found in CAA section 202(a)(2).

From the asserted premise that consistency with CAA section 202(a) must include all aspects of that provision, waiver opponents reason that a waiver can only be granted under CAA section 209(b) if EPA can sustain a finding that the state standard is "applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines": in other words, that the rule would fall within the scope of authority that commenters allege is granted to EPA to regulate new motor vehicles. One commenter expressed this view by stating that section 209(b)(1) "does not let EPA delegate more authority than it possesses under the law to CARB."[243] These commenters then offer a series of arguments for why they believe ZEV standards would be outside of that authority.[244]

Waiver opponents allege that EPA's authority to set standards under CAA section 202(a) is limited to "any class or classes" of new motor vehicles that "cause or contribute to air pollution." The commenters reason that because ZEVs do not cause emissions from combustion,

[241] API, p.5; Illinois Corn Growers, p.21; and TPPF, p.2.
[242] API, p.4.
[243] TPPF, p.3.
[244] One commenter referenced "a detailed analysis as to why a ZEV mandate is impermissible under CAA § 202(a)" submitted during the comment period on EPA's recently promulgated light and medium duty vehicle rules. API, p.6.

they are beyond EPA's standard-setting authority, and by virtue of the CAA section 209(b)(1)(C) consistency requirement therefore also beyond the State's authority. These commenters further argue that it is arbitrary and capricious to group ZEVs in the same "class" as internal combustion engine (ICE) vehicles, thus foreclosing a standard formulated based on a mixture of the two.[245]

Focusing on the statutory terms "class or classes," waiver opponents make the related argument that a ZEV standard is technically infeasible because there are no ICEs capable of meeting a zero emissions standard.[246] The commenters thus reason that a ZEV standard is infeasible for the only class of new motor vehicle that EPA (and therefore, the state) is authorized to regulate.

Commenters opposed to the waiver also state the position that a ZEV sales "mandate" is not a "standard applicable to emission of any air pollutant" within the meaning of CAA section 202(a) because it is in fact a mandate to use a particular technology.[247] They reason that because an electric drivetrain is the only technology currently available and capable of meeting a zero emissions standard, the standard must be viewed as a requirement to use that technology. This, they assert, conflicts with section 202(a), which authorizes EPA to set an emissions standard but not to mandate the technology that must be used to meet that standard.

One commenter stated that a ZEV sales "mandate" must be treated as a new power source or propulsion system under CAA section 202(e), and that EPA has not complied with additional steps required thereunder before such a system can be subject to regulation.[248]

[245] Illinois Corn Growers, p.25.
[246] AFPM, p.21.
[247] API; Illinois Corn Growers, Sinclair, AFPM, p.21.
[248] API, p.7.

One commenter representing a coalition of automobile manufacturers suggested EPA should depart from its longstanding approach to the third waiver criterion by considering the feasibility of achieving the standard in states that, pursuant to CAA section 177, can choose to adopt standards subject to the waiver.[249] This commenter stated that, while it was not disputing the availability of ZEV technology, it was concerned with the feasibility of applying a ZEV standard in states outside of California which adopt ACC II regulations pursuant to section 177 in the proportions and time frames set forth in ACC II.

b. EPA Response on the Legal Interpretation of "consistency with section 202(a)"

CAA section 209(b)(1)(C) provides that a waiver may not be granted if the state standard is "not consistent with" CAA section 202(a). In this section we respond to the two-part argument from commenters asserting, first, that a state standard is "consistent with" CAA section 202(a) only if the standard is one that EPA itself has authority to adopt, and second, that section 202(a) would not provide EPA with authority to set a ZEV standard such as that in ACC II. As we explain, the statutory text, context and structure, legislative history, and case law all support the conclusion that Congress did not intend through the section 209(b)(1)(C) consistency requirement to constrain California to acting in lockstep compliance with section 202(a) generally or to foreclose state standards based on electrification of vehicles specifically. We then explain why even if one accepts that the consistency requirement places the same limits on the state's authority to consider electrification as applying to EPA, this does not categorically bar the state from adopting a ZEV standard. Section 202(a)(1) places no categorical limitation either on the type of technologies that may be considered in setting standards for motor vehicles, or on the

[249] Alliance for Automotive Innovation, pp.1-5.

degree to which emission reductions may be required, up to and including a total elimination of emissions.

Before addressing commenters' legal arguments, we begin by reciting the lengthy history of ZEV waivers. Today's waiver of preemption for the ACC II ZEV standard follows three decades of waiver actions regarding California's ZEV program. This history demonstrates a consistent approach to consideration of the ZEV program under CAA section 209.

The first regulation requiring sales of ZEV vehicles was adopted by the State in 1990 as part of the State's Low Emission Vehicle (LEV) program. That program figured prominently in the legislation of the 1990 Amendments, and Congress referenced the LEV program multiple times in the Act.[250] Moreover, in CAA section 246(f)(4), Congress specifically referenced the ZEV program and even mandated that EPA emulate those standards for purposes of a discrete credit program.[251]

Subsequently, EPA granted a waiver for the LEV program, including the ZEV component, in 1993.[252] Commenters on the 1993 waiver for the ZEV regulations[253] questioned whether the standard was technically feasible given the lead time allowed. However, commenters did not raise categorical objections to waiving preemption for a ZEV regulation. This inaugural ZEV program waiver was evaluated much like standards imposing emission controls on ICE vehicles had been up to that point.

[250] *See, e.g.*, CAA §§ 241(4), 243(f)-(g), 244, 249(e).
[251] CAA section 246(f)(4) ("The standards established by the Administrator under this paragraph for vehicles under 8,500 lbs. GVWR or greater shall conform as closely as possible to standards which are established by the State of California for ULEV and ZEV vehicles in the same class.")
[252] 58 FR. 4166 (Jan. 13, 1993).
[253] Waiver of Preemption, California Low Emission Vehicle Standards, Decision Document, EPA, January 8, 2003, pp.73-117, see EPA-HQ-OAR-2023-0292 for a copy.

Multiple revisions to the ZEV program have subsequently been confirmed by the EPA to be within the scope of the 1993 waiver.[254] For example, though CARB removed certain phase-in percentages of ZEVs in its action approved by EPA in 2001, it retained a "ten percent ZEV requirement for the 2003 model year" while creating credits for ZEVs produced before model year 2003.[255] Noting that its standards remained at least as stringent as federal standards which "do not require manufacturers to certify and produce any ZEVs,"[256] the elimination of the ZEV requirement between 1998 and 2002 "provide[d] affected manufacturers with an additional five years lead time to comply with the ZEV requirements."[257]

In 2006, EPA issued a waiver action for revisions to the program.[258] The Decision Document accompanying the 2006 waiver includes a detailed explanation and response to comment regarding the basis for the waiver.[259] The argument from commenters opposed to the 2006 waiver used the same logic offered by commenters now opposing waiver for the ZEV regulation in ACC II, namely that EPA's authority under CAA section 202(a) to set "standards applicable to emissions" would not allow EPA to set a ZEV "design" requirement, that this limitation is imported into CAA section 209(b) through the third waiver criterion's "consistency" requirement, and that the asserted limit on EPA's authority is thus also a limit on the State's

[254] In January 2001, EPA found that the 1996 ZEV amendments were within the scope of the 1993 waiver. 66 FR 7751 (Jan. 25, 2001). In December 2006 EPA determined that further ZEV amendments, as they applied to 2007 and prior model year passenger cars and light-duty trucks, also fell within the scope of the 1993 waiver and also granted a new waiver for specified model years. 71 FR 78190 (Dec. 28, 2006).
[255] Decision Document accompanying 66 FR 7751, at 4-5.
[256] *Id.* at 17 (citing CARB's Request Letter at 6).
[257] *Id.* at 19.
[258] 71 FR78190 (Dec. 28, 2006). Note that in this action the waiver granted by EPA only extended through the 2011 model year. EPA took no action regarding later model years included in the State's ZEV program. EPA's 2006 Decision Document for this waiver can be found at EPA-HQ-OAR-2023-0292.
[259] California State Motor Vehicle Pollution Control Standards: Waiver of Federal Preemption, Decision of Administrator (2005 and Subsequent Model Year Zero-Emission Vehicles (ZEV)), December 21, 2006.

authority.[260] Similar to comments received on ACC II, opponents of the 2006 waiver also posited that a prohibition on emissions is not a "standard applicable to emissions" within the meaning of section 202(a). In granting the 2006 waiver, EPA explained (1) why the ZEV program falls within the definition of a "standard" for purposes of section 202(a), (2) how the program is consistent with that section, and (3) how the program is also consistent with the term "standard" in section 209(a). The 2006 ZEV program waiver was not challenged in court. The 2006 notice and supporting rationale is thus another significant milestone in the long history of the EPA's interpretation of CAA section 209(b) as allowing for waivers for ZEV regulations.

In 2011, EPA found that the 2008 ZEV amendments affecting model years 2011 and prior were within the scope of prior waivers.[261] The 2011 notice also granted a new waiver for 2012 and later model years. In 2013, EPA responded to a request for waiver for the ACC I program by confirming that the ZEV component for 2017 and prior model years was within the scope of previous waivers, and also by granting a new waiver for 2017 and subsequent model years.[262] For model years 2017 and prior, EPA determined the revisions to the ZEV program were within the scope of previous waivers.[263] For model years 2018 and beyond, EPA determined that the ZEV program increased in stringency and created new issues, and thus merited evaluation as a new waiver.[264] Though some comments questioned the technical feasibility of the ZEV portion of the program for the 2018 and later model years, no comments challenged the legal underpinning of a waiver for the ZEV program. When EPA in 2013 granted the waiver for the ACC program, it thus had no occasion to opine on whether CAA section 209(b) poses a

[260] EPA 2006 Decision Document, at 39.
[261] 76 FR 61095 (Oct. 3, 2011).
[262] 78 FR 2112 (Jan. 9, 2013).
[263] 78 FR 2145.
[264] *Id.*

categorical bar to waiver of a ZEV regulations. The 2013 action nevertheless represented a consistent application of legal interpretations underlying a waiver for a ZEV standard.[265] As with the above-described actions, no petitions for judicial review were filed. In 2013 EPA granted a waiver for the State's ACC I program, which included an expansion of the ZEV sales requirement of approximately five percent. Though some commenters argued for denial of the ZEV standard under the second prong, and some commenters questioned the feasibility of the ZEV sales requirement,[266] no commenters asserted that a ZEV standard is per se inconsistent with section 202(a). EPA's revocation of the 2013 waiver focused on second prong issues, as did the 2022 action restoring the 2013 waiver. The history of EPA's action surrounding the ZEV requirements in ACC I thus does not represent a break in EPA's consistent approach to the third prong analysis.

In 2023, EPA granted a waiver for the State's Advanced Clean Trucks, Zero Emission Airport Shuttle Bus, and Zero Emission Powertrains Certification programs.[267]

While the ACC II regulations require increased percentages of ZEVs relative to earlier iterations of the program, the requirement that motor vehicle manufacturers sell ZEVs as a portion of their fleet has remained fundamentally the same over the past three decades. Similarly, while California's purpose for the ZEV program has evolved from initial design to either reduce criteria emission pollutants or enable the technology that would do so in the future to a purpose and design to address both criteria pollutants and GHG emissions, the structure of the program,

[265] EPA has twice departed from these consistent traditional interpretations, both times regarding the application of the second prong. In both cases, EPA quickly recognized these departures as erroneous and reverted to the correct interpretation. These instances are described in more detail in Section III.B. above.
[266] EPA carefully considered these feasibility objections and found that waiver opponents had not carried their burden to demonstrate infeasibility. See 79 FR pp. 2139-2145 (January 9, 2013).
[267] 88 FR 20688 (April 6, 2023).

centered on the requirement that ZEVs comprise a certain percentage of a manufacturer's in-State sales, has remained the same and EPA's waiver approach has remained relatively constant.

i. The Third Prong Consistency Requirement Does Not Categorically Preclude a Waiver of Preemption for a ZEV Standard

As noted, commenters' two-part argument begins with the general assertion that the "consistent with" language in CAA section 209(b)(1)(C) means the state's authority to adopt a standard is no broader than EPA's authority under CAA section 202(a). The commenters generally fail to develop this argument, providing no analysis of the meaning of the term "consistent."[268] We find the commenters' argument to be unsupportable. To begin with, the dictionary definition of "consistent" does not require absolute compliance. Rather, "consistent" can mean "compatible" and "marked by harmony,"[269] and its synonyms include "harmonious" and "congruous."[270] These definitions support the conclusion that the phrase "consistent with [section 202(a)]" does not require California's standards to comply with all aspects of section 202(a). Rather, "consistent" can call for congruence and compatibility.[271]

Beyond the dictionary definition, an interpretation of the "consistent with" provision must "account for the broader context of the statute as a whole" and should be based on analysis

[268] One commenter states, "Congress required that California *comply* with all of 202(a)" (emphasis added). API, p.5. This commenter makes no attempt to explain why "comply" (or "compliance") should be treated as a synonymous with "consistent."
[269] https://www.merriam-webster.com/dictionary/consistent (as of December 5, 2024). *See also* 88 FR 20712 (April 6, 2023); https://www.ahdictionary.com/word/search.html?q=consistent (as of December 5, 2024).
[270] https://www.merriam-webster.com/dictionary/consistent (as of December 5, 2024); https://www.dictionary.com/browse/consistent (as of December 5, 2024).
[271] *See also MEMA II at* 463-64 ("section 209(b)(1) makes clear that section 202(a) does not require, through its cross-referencing, consistency with each federal requirement in the act. California's consistency is to be evaluated "in the aggregate," rather than on a one-to-one basis"). See also 88 FR at 20712-20713.

of the text, context, purpose, and history of the relevant portions of the Act.[272] The statutory context strongly supports EPA's reading. The CAA provides numerous instances of provisions where identicality rather than consistency is expressly required, indicating that Congress knew how to clearly require perfect identicality—i.e., California's exact compliance with CAA section 202(a)—if it wanted to. Most notably, CAA section 177 allows qualifying states to adopt standards waived pursuant to CAA section 209 if "such standards are identical" to those for which preemption has been waived. Thus, even within the Title II motor vehicle waiver program itself, Congress variously required consistency and identicality where it deemed each appropriate. Similarly, in the CAA section 211(c) program for EPA regulation of fuels, the preemption of state fuels regulation may be waived by EPA, but only where such state regulation is "identical" to that put in place by EPA.[273]

Elsewhere in the Act, Congress also expressly required States to comply with Federal law. For example, CAA section 110 variously requires States to submit plans to "meet the applicable requirements" of the Act.[274] The Administrator is also authorized to call for State plan revisions if he determines that the plan fails to "comply with any requirement of this chapter."[275] Had Congress wanted California to comply with Federal law, it could have easily used similar language, but instead it chose to require mere consistency, not compliance.

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[272] *Wisconsin* v. *EPA,* 938 F.3d 303, 316 (D.C. Cir.2019) (Citing *Envtl. Def. Fund Inc.* v. *EPA,* 82 F.3d 451, 460 (D.C. Cir. 1996); *Nuclear Energy Institute, Inc.* v. *EPA,* 373 F.3d 1251, 1270 (D.C. Cir. 2004)). See also, *NextEra Energy Res., LLC v. FERC*, 118 F.4th 361, 371 (D.C. Cir. 2024) ("courts should prefer textually permissible readings that would advance statutory or regulatory goals over ones that would frustrate them.")

[273] 42 USC § 7545(c)(4)(A)(ii); *see also* 42 USC § 7573 (state regulation of aircraft emissions preempted "unless such standard is identical to a standard applicable to such aircraft under this part").

[274] *E.g.*, CAA section 110(a)(2)(A), (I), (J), (k)(3)-(5).

[275] CAA section 110(k)(5).

EPA's interpretation of "consistent" also coheres with how the word "consistent" is used in many other parts of the Act. For example, in *Wisconsin* v. *EPA,* 938 F.3d 303, 316 (D.C. Cir. 2019), the D.C. Circuit stated that "we do not conclude that the phrase 'consistent with' in the Good Neighbor Provision necessarily effects an incorporation of the full contours of every provision of Title I in pure, lockstep fashion. As we have observed elsewhere in construing the same words in the context of the same statute, the phrase 'consistent with' other statutory sections calls for congruence or compatibility with those sections, not lock-step correspondence.'"

To provide another example, CAA section 101(c) states that "[a] primary goal of this chapter is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, *consistent with* the provisions of this chapter, for pollution prevention."[276] But this does not mean that all State and local air pollution prevention actions can only be limited to EPA's powers under the Act; in fact, the exact opposite is true as States and localities can impose additional requirements beyond what EPA may require.[277] Other examples of similar usage of "consistent with" abound.[278]

Commenters' reading of "consistent with" as requiring California to perfectly comply with all of CAA section 202(a) would also create unworkable conflicts with the statutory structure and give rise to difficult constitutional issues. Notably, section 202(a) imposes a number of duties on EPA, many of which cannot reasonably be interpreted as applying to the

[276] CAA section 101(c) (emphasis added).
[277] See, e.g., CAA section 116, 110(a)(5).
[278] For example, section 202(l)(2) requires EPA to promulgate mobile source air toxics regulations and says, "Such regulations shall not be inconsistent with standards under subsection (a)." That requires harmony between the air toxics standards and the other section 202(a) standards, but it does not mean the air toxics standards must now comply with all the directives under section 202(a), many of which do not apply to air toxics but rather apply to criteria pollutants, *see, e.g.,* CAA section 202(a)(3)(A)(i), (B)(ii).

state. This begins with the first sentence and central command of section 202(a)(1), directing EPA to set standards for dangerous pollutants emitted by mobile sources upon making an endangerment finding. It is clear that this directive from Congress to EPA does not, by virtue of the consistency requirement of CAA section 209(b)(1)(C), become a directive to the state. Because nothing in the CAA requires the state to have a mobile source program at all, such a requirement cannot be read into the section 209 consistency requirement. Indeed, the remainder of section 209 makes it inescapably clear that whether California has its own motor vehicle program or not is, in the first instance, the State's choice, not a Federal mandate.[279] Moreover, construing the Act as commandeering that California establish its own motor vehicle program could violate the anti-commandeering doctrine.[280]

The CAA section 202(a)(1) directive to EPA to set mobile source standards is but one of many requirements in section 202(a) that only make sense as applied to EPA.[281] It follows that commenters' assertion that section 209(b)(1)(C) consistency requires that state standards must comply with all aspects of section 202(a) cannot be reconciled with the terms of that provision.

Beyond these specific conflicts, commenters' reading also runs afoul of the purposes of CAA section 209. Commenters make no attempt to reconcile, on the one hand, the restriction on

[279] CAA section 209(b)(1) (directing EPA to waive preemption "*if the State determines* that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards" (emphasis added)).
[280] See *Printz v. United States*, 521 U.S. 898, 925, 117 S. Ct. 2365, 2379 (1997) (discussing the constitutional infirmity of prior EPA regulations that required States to establish auto emissions testing programs).
[281] Another provision that cannot reasonably be applied to the state is section 202(a)(3)(A)(i), which requires EPA to establish standards that reflect "the greatest degree of emission reduction achievable" for four listed pollutants for heavy duty motor vehicles. A requirement to regulate a class of motor vehicles in a specific manner cannot be reconciled with the requirement of section 209(b)(1) that the state's protectiveness determination be evaluated "in the aggregate." Section 202(a) calls for even more specific emission limits, for example in sections 202(a)(3)(B)(ii) and 202(a)(6), that likewise cannot be reconciled with the "in the aggregate" language. To provide another example, the requirement in section 202(a)(3)(D) for the Administrator to conduct a study for the practice of rebuilding heavy-duty engines and, on the basis of such study, consider prescribing requirements for rebuilding practices is clearly directed at EPA and not a requirement of California. It would not be a reasonable reading of section 209(b)(1)(C) to require California to complete an identical study in order to be "consistent with" section 202(a).

state authority they assert flows from the consistency requirement of the third waiver criterion with, on the other, the purpose of the waiver program as demonstrated by the statutory context and the legislative history. As described elsewhere in this notice and throughout the history of EPA's waiver notices, section 209(b) is premised on the idea of two complementary motor vehicle regulatory programs, with California's dedicated to addressing the state's severe air pollution problems while serving as a laboratory for experimentation for motor vehicle emission policy designs and technologies. The legislative history of CAA section 209 is replete with evidence that Congress intended to allow the state the broadest discretion possible, and is devoid of any indication that the state's authority should be limited in scope to that of EPA's authority under section 202(a).[282] In light of the statutory structure and legislative history, it is not credible that Congress would have carved out from section 209(a) preemption an exception specifically designed to allow the State to address its exceptional air quality issues and continue its historical role as regulatory innovator only to, in the same breath, limit that flexibility to what EPA itself could achieve through the third waiver criterion's consistency requirement.

That the intent and purpose of the CAA section 209 waiver program is to provide broad policy discretion to the state has been repeatedly affirmed by the courts. The *MEMA I* Court noted that the structure of section 209(b), and in particular the decision in the 1977 Amendments to adopt the "in the aggregate" approach to determining protectiveness, was intended "to afford California the broadest possible discretion in selecting the best means to protect the health of its

[282] See Section II.B.2, above.

citizens and the public welfare."[283] The *MEMA II* Court observed that section 209(b) is designed "to permit California to blaze its own trail with a minimum of federal oversight."[284]

CAA Amendments subsequent to 1977 further confirm a statutory design to allow the state the broadest possible discretion in general and support the conclusion that a waiver is available for ZEV standards. The addition of CAA section 209(e) in 1990 extended the waiver program to nonroad vehicles and engines, and in so doing emulated the structure of CAA section 209(b), including the three waiver criteria. Following EPA's longstanding and consistent interpretation of the third waiver criterion's consistency requirement as entailing review of lead time for technology considering costs, use of the same approach in section 209(e) represents a ratification by Congress of that interpretation.[285]

The commenters also fail to address EPA's longstanding historical practice on this issue. EPA's approach ensures that California in setting its own standards evaluates feasibility, lead time, and cost, consistent with how EPA also must evaluate these factors in setting Federal standards. EPA's historical approach also ensures that enforcement mechanisms, such as test procedures, are compatible to avoid creating challenges for automakers in complying with both

[283] *MEMA I*, 627 F.2d at 124 (citing H.R.Rep. No. 294, 95th Cong., 1st Sess. 301-02 (1977), U.S. Code Cong. & Admin. News 1977, p.1380).
[284] *MEMA II*, 142 F. 3d 449, 463.
[285] See "Air Pollution Control; Preemption of State Regulation for Nonroad Engine and Vehicle Standards," 59 FR 36969 (July 20, 1994). (To determine consistency with section 209(b)(1)(C), EPA typically reviews nonroad authorization requests under the same "consistency" criteria that are applied to motor vehicle waiver requests under section 209(b)(1)(C). That provision provides that the Administrator shall not grant California a motor vehicle waiver if the Administrator finds that California "standards and accompanying enforcement procedures are not consistent with section 202(a)" of the Act. Previous decisions granting waivers and authorizations have noted that state standards and enforcement procedures will be found to be inconsistent with section 202(a) if (1) there is inadequate lead time to permit the development of the necessary technology, giving appropriate consideration to the cost of compliance within that time, or (2) the federal and state testing procedures impose inconsistent certification requirements.)

California and federal standards.[286] This is in accordance with the dual-program structure enacted by Congress.

EPA has followed this approach since the inception of its waiver practice and has adhered to it in countless waiver proceedings. The D.C. Circuit has also repeatedly upheld this approach to the third prong, stating that "[i]n the waiver context, section 202(a) relates in relevant part to technological feasibility and to federal certification requirements…. Neither the court nor EPA has ever interpreted compliance with section 202(a) to require more."[287] As noted above, Congress also ratified EPA's general approach to the waiver program in the 1977 and 1990 amendments. Commenters fail to adduce any persuasive explanation as to why EPA should suddenly deviate from its five-decade long precedent to further preempt the State's ability to adopt its own motor vehicle program.

Beyond the above general defects with the commenters' interpretive arguments, their reading founders for additional reasons in the specific context of relying on consistency with CAA section 202(a) to categorically limit the State's ability to establish a motor vehicle emissions program based on ZEV technology. In CAA section 202(a), Congress charged EPA with administering a technology-based program for reducing vehicle emissions. EPA was to determine the pollution control technologies projected to be available in the lead-time provided, and in turn establish increasingly protective standards based on the availability of new and improved technologies. In CAA section 209, Congress provided for California to have its own vehicle emissions program and to render its own technical and policy judgments. Those judgments necessarily extend to the identification of available and appropriate pollution control

[286] 42 FR 2337, 2338 (January 11, 1977).
[287] *MEMA II*, 142 F. 3d at 463 (citing *MEMA I*, 627 F.2d at 1101, 1111; *Ford*, 606 F.2d at 1296 n.17; *American Motors Corp*., 603 F.2d at 981; Waiver of Federal Preemption, 46 Fed. Reg. at 26372).

technologies that might serve as the basis for the program, and to the consideration of more advanced technologies as they become available over time.

These facts were expressly recognized in the 1967 and 1977 Amendments. The Senate Committee Report accompanying the 1967 Amendments stated that "the benefits for the Nation to be derived from permitting California to continue its experiments in the field of emissions control benefits the Committee recognized might require new control systems and design."[288] In other words, Congress expected California to identify "new control systems and design" for pollution control technologies beyond those identified by EPA. Similarly, the history to the 1977 Amendments "indicates that Congress intended the State to continue and expand its pioneering efforts at adopting and enforcing motor vehicle emission standards different from and in large measure more advanced than the corresponding federal program; in short, to act as a kind of laboratory for innovation."[289] This is reflected in the addition of the "in the aggregate" provision. California might make different technological judgments than EPA and require standards based on technologies that increase emissions of certain pollutants while further decreasing emissions of other pollutants, so long as the State's program remained more protective than the Federal program "in the aggregate."[290]

Thus, for example, while EPA is required by CAA section 202(a)(3)(A)(i) to establish heavy-duty standards for "hydrocarbons, carbon monoxide, oxides of nitrogen, and particulate matter" "which reflect the greatest degree of emission reduction achievable through the application of technology," California is not required to do so. Rather, "[t]he intent of the 1977 amendment [regarding the 'in the aggregate' provision] was to accommodate California's

[288] *MEMA I*, at 1110 (citing S.Rep. No. 403, 90th Cong., 1st Sess. 33 (1967)) (cleaned up).
[289] *Id*. at 1111.
[290] *Id.* at 1110 n.32 (discussing this legislative history).

particular concern with oxides of nitrogen, which the State regards as a more serious threat to public health and welfare than carbon monoxide," and allow California to choose its own set of technologies—which might require fewer carbon monoxide reductions but more nitrogen oxide reductions. California was thus not to be constrained by the technological prescriptions Congress imposed on EPA.[291] In sum, the Act and its history are clear that the waiver provision is intended to preserve California's ability to identify the pollution control technologies it deems appropriate, without any categorical limitation, and subject only to consistency with the general feasibility requirements contained in section 202(a).

More specifically, Congress has recognized California's ability to establish standards based on ZEV technology. The 1990 CAA Amendments included section 246(f)(4), which requires EPA to establish a credit program for corporate fleets that takes into account "standards which are established by the State of California for . . . ZEV vehicles." As described above, California adopted its first ZEV regulatory standards shortly before passage of the 1990 CAA amendments. Congressional recognition of those ZEV regulations in CAA section 246(f)(4) is premised on the eligibility of a ZEV standard for a waiver of preemption under CAA section 209.

Relatedly, the 1990 CAA Amendments also added section 243(e), which stated that certain California standards established and implemented "pursuant to a waiver under section [209]" "shall apply to clean-fuel vehicles" in lieu of the statutory standards for such vehicles. Congress explicitly recognized clean-fuel vehicles as vehicles capable of running on "clean alternative fuels," "including electricity" and "hydrogen," as well as "dual fuel vehicle[s]." In

[291] More generally, the various numerical requirements in section 202(a)—requiring EPA to establish standards at certain levels—appear inconsistent with the "in the aggregate" provision, under which California can choose to establish standards at different levels than EPA so long as the State's program is in the aggregate more protective. See, *e.g.*, CAA section 202(a)(3)(B)(ii), 202(a)(6).

other words, Congress indicated that California could establish standards for electric vehicles (like zero-emission battery electric vehicles) and hydrogen vehicles (like zero-emission fuel cell electric vehicles), and that such standards could qualify for a waiver under CAA section 209.

In the 2022 Inflation Reduction Act (IRA), Congress again indicated approval of a waiver of preemption for California ZEV regulations by directing EPA "to provide grants to states to adopt and implement greenhouse gas and zero-emission standards for mobile sources pursuant to [S]ection 177 of the Clean Air Act."[292] Because a waiver of preemption under CAA section 209 is a prerequisite to other states adopting and enforcing California standards pursuant to CAA section 177, fulfillment of this directive of the IRA is possible only if a zero emissions standard is eligible for waiver.[293]

In sum, we conclude that the third waiver prong consistency does not require California to conform identically to every provision of CAA section 202(a). More specifically, it does not require that eligibility of a state standard for a waiver depends on whether EPA could have adopted that same standard under section 202(a). Nor does consistency with section 202(a) pose a categorical barrier to California's adopting a program based on specific technologies, including ZEVs.

ii. CAA Section 202(a)(1) Authorizes EPA to Establish a ZEV Standard

[292] Inflation Reduction Act, Pub. L. 117-169, tit. VI, Subtitle A, § 60105(g), 136 Stat. 1818, 2068– 69 (2022).
[293] 168 Cong. Rec. E879-02, at 880 (daily ed. Aug. 26, 2022) (statement of Rep. Pallone, Chairman of the House Energy and Commerce Committee) ("A necessary predicate for states adopting California's standards under Section 177 is that EPA issue a waiver of preemption pursuant to CAA Section 209. By making these funds available specifically for states to adopt and implement California's GHG and zero emission mobile source standards, Congress indicates its approval of EPA's decision to grant a waiver to California for such standards where the statutory criteria have been met. EPA has done this several times in the past including, but not limited to, in 2009 for California's GHG standards for new motor vehicles; in 2013 for California's advanced clean car standards, including its zero-emission vehicle sales mandate; and in 2014 and 2016 for California's heavy-duty GHG emission standards. California may continue to need such standards to address compelling and extraordinary conditions.").

The preceding discussion explains why the CAA section 209(b)(1)(C) requirement that state standards be "consistent" with section 202(a) does not entail consideration of the scope of EPA's authority to regulate motor vehicles. However, even if the scope of EPA's authority is relevant, this would not prevent a waiver of preemption for a ZEV standard. In this part of Section III.C.3., we begin by explaining that EPA's general authority to set emission standards for new motor vehicles under section 202(a)(1) is not restricted to vehicles with certain powertrains or pollution control technologies. We then consider the form that such standards may take and explain why CAA section 202(a)(1) authorizes standards based on electrified technology up to and including standards that prevent emissions entirely. Finally, we explain that the ACC II ZEV standard, as a per-vehicle standard applicable to fleets and phased in over time, is consistent with section 202(a)(1).

iii. The CAA Authorizes EPA to Consider Electrification Technologies in Setting Standards for Motor Vehicles

Focusing on language in CAA section 202(a)(1) requiring EPA to set standards "applicable to the emission of any air pollutant from any class or classes of new motor vehicles [which] cause, or contribute to, air pollution . . . which . . . may reasonably be anticipated to endanger public health or welfare . . .," commenters advance a number of arguments for why this language categorically precludes EPA from imposing a standard based on the application of ZEV technologies. First, they argue that any standard requiring the elimination of emissions is by definition not "applicable to the emission of any air pollutant." Second, commenters argue that because a ZEV does not emit pollution, a class or classes of ZEVs could not be "reasonably anticipated to endanger public health or welfare." Third, commenters argue that it would be arbitrary and capricious to circumvent these first two objections by setting a standard applicable

to a "class" or "classes" that combine ICE vehicles and ZEVs. Finally, commenters argue that a ZEV standard is not an emission standard but rather is a requirement to use a particular design or technology, and as such is beyond the authority granted by section 202(a)(1).

These comments are similar to more detailed comments received regarding the EPA's recent LMDV Multipollutant Rule.[294] Though the LMDV Multipollutant Rule does not impose a ZEV sales requirement, it sets fleet emission standards for classes of vehicles that take into account percentages of battery electric vehicles that manufacturers may choose to sell nationwide. The preamble to the LMDV Multipollutant Rule contains a detailed explanation of EPA's authority to take electrification technologies, including battery electric vehicles, into account in setting fleet average standards.[295] In this notice, we briefly summarize this reasoning. Readers are directed to the LMDV Multipollutant Rule preamble and the *Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles: Response to Comments* ("LMDV Response to Comments") document for more information on these issues.[296] We also explain below why CAA section 202(a)(1) would also authorize a ZEV standard such as that in ACC II that is phased in for a fleet over a number of years.

[294] 89 FR 27842, April 18, 2024.
[295] See 89 FR 27842, 27887–27902 (April 18, 2024); *see also Multi-Pollutant Emissions Standards for Model Years 2027 and Later*; *Light-Duty and Medium-Duty Vehicles: Response to Comments* (LMDV Response to Comments), EPA Report EPA-420-R-24-005 (Mar. 2024), pp. 289–359. See also, EPA's Proof Answering Brief, *Kentucky et al. v. EPA*, No. 24-1087 (D.C. Circuit 2024) (incorporated herein by reference).
[296] The LMDV Multipollutant Rule preamble and LMDV Response to Comments (available at nepis.epa.gov/Exe/ZyPdf.cgi?Dockey=P1019WE6.pdf, accessed December 5, 2024) are incorporated here by reference. EPA's citations to the LMDV Multipollutant Rule do not reopen that rulemaking in any way, and they do not constitute a serious, substantive reexamination of that rule. Rather, EPA's references to the LMDV Multipollutant Rule are solely meant to support EPA's decision in adjudicating this ACC II waiver action, given the overlap in legal arguments raised by the commenters, particularly those who reference their LMDV Multipollutant Rule rulemaking comments. Generally, EPA's final action today solely resolves the Advanced Clean Car II waiver proceeding and does not reopen any other prior EPA action.

In the LMDV Multipollutant Rule, we explained that CAA section 202(a)(1) authorizes EPA to consider a broad range of emission-reducing technologies when setting standards applicable to emissions. Responding to commenters who asserted that the CAA allows consideration only of technologies applicable to ICE vehicles, the LMDV Multipollutant Rule preamble notes that by its plain language section 202(a)(1) provides authority to set standards based on electrification technologies, including those found in ICE vehicles, hybrid electric vehicles (HEVs), plug-in hybrid electric vehicles (PHEVs), and battery electric vehicles (BEVs).

Focusing first on the type of vehicle that may be the subject of regulation, CAA section 202(a)(1) gives EPA authority to set standards applicable to "motor vehicles," which are defined as "any self-propelled vehicle designed for transporting persons or property on a street or highway." The definition of "motor vehicle" unambiguously establishes that the EPA's regulatory authority is not limited to vehicles equipped with internal combustion engines. Title II contains many provisions that specifically refer to engines,[297] as well as other provisions that specifically refer to "gasoline" or "diesel" vehicles or engines.[298] That "motor vehicles" are defined without references to engines or to a fuel type thus represents a deliberate choice by Congress to not so limit EPA's authority in this area. This is reinforced by the section 202(a)(1) reference to "new motor vehicles *or* new motor vehicle engines" (emphasis added), which through delineation of

[297] *See, e.g.,* section 202(a)(1) (EPA may set standards for "new motor vehicles or new motor vehicle engines"), section 202(a)(3)(E) ("motorcycles and motorcycle engines" shall be regulated in the same manner as heavy-duty vehicles), and section 206(a)(1) (EPA to require testing for "new motor vehicles and new motor vehicle engines"). This conclusion is also supported by the comparison of the street or highway-bound "motor vehicle" definition in section 216(2) with a "nonroad vehicle," defined in section 216(11) as only those vehicles that include a nonroad engine.

[298] See, e.g., section 202(a)(3)(B)(ii), (a)(5), (g)(1) table G, (h) table H, (i)(1) & table 3, (k).

separate categories further supports that Congress did not intend to limit regulatory solutions to only those involving motor vehicles with engines.[299]

As described in detail in the LMDV Multipollutant Rule, electrified technologies have been incorporated into motor vehicles to control emissions in various ways and to varying degrees for decades.[300] BEVs are a prominent example of using electrification to "prevent" emissions within the meaning of CAA section 202(a)(1), but BEVs exist on a continuum of electrification technologies for control of emissions. Commenters do not take the position that EPA cannot require any electrification technologies. Rather, commenters appear to draw a distinction in EPA's authority between electrification technologies that reduce emissions versus those that eliminate emissions entirely. However, nothing in the statute suggests such a distinction. Section 202(a)(2) simply commands EPA to adopt emissions standards based on the ''development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period." And, section 202(a)(1) describes the applicability of EPA's standards to not only "control" but also "prevent" air pollution. In addition, "air pollution prevention" means, according to Congress, "the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source."[301]

[299] See 89 FR 27891 (April 18, 2024).
[300] As noted in the LMDV Multipollutant Rule, these include technologies that improve the efficiency of the engine and system of propulsion, such as the electronic control modules, electronically-controlled fuel injection (for all manners of fuel including but not limited to gasoline, diesel, natural gas, propane, and hydrogen), and automatic transmission; technologies that reduce the amount of ICE engine use such as engine start-stop technology and other idle reduction technologies; add-on technologies to control pollution after it has been generated by the engine, such as gasoline three-way catalysts, and diesel selective catalytic reduction and particulate filters that rely on electrified technology to control and monitor their performance; non-engine technologies that rely on electrified systems to improve vehicle aerodynamics; technologies related to vehicle electricity production, such as high efficiency alternators; and engine accessory technologies that increase the efficiency of the vehicle, such as electric coolant pumps, electric steering pumps, and electric air conditioning compressors.
[301] CAA section 101(a)(3).

As also noted in the LMDV Multipollutant Rule preamble, the legislative history reinforces that the purpose behind CAA section 202(a)(1) is to achieve large reductions in motor vehicle emissions through the application of new and improved pollution control technologies.[302] The LMDV Multipollutant Rule preamble cites a number of statements in the legislative history of Title II regarding the likelihood that the effort to control emissions from motor vehicles would lead to reliance on technologies other than ICE vehicles. References to the pollution-reducing promise of electric vehicles can be found in 1967 Congressional hearings, and in the lead up to the CAA Amendments in 1970 and 1990.[303]

That Congress nowhere limited the types of technologies that could be considered in achieving the statutory goal to prevent pollution from motor vehicles is further evidenced by instances in which Congress has explicitly recognized technologies that control or prevent emissions that are not ICE vehicles. Numerous statutory provisions recognize that electric vehicles are motor vehicles under the CAA. For example, since 2009, Congress has conditioned tax credits for electric vehicles on, among other things, those vehicles being "treated as a motor vehicle for purposes of [T]itle II of the Clean Air Act" and being in compliance with "the applicable provision of the Clean Air Act for the applicable make and model year of the vehicle." 26 U.S.C. § 30D(d)(1)(D), (f)(7).[304] The IRA reaffirms this longstanding Congressional intent that ZEVs are an important technology to reduce emissions, providing a number of economic

[302] 89 FR 27894 (April 18, 2024).
[303] *Id.*
[304] *See also* 26 USC 30D(c)(3)(A), (10) (2006 ed. & supp. II). Congress also instituted a clean fuel vehicles program to promote further progress in emissions reductions, which also applied to motor vehicles as defined under section 216, see CAA section 241(1), and explicitly defined motor vehicles qualifying under the program as including vehicles running on an alternative fuel or "power source (including electricity)," CAA section 241(2). *See also* CAA section 246(f)(4) (under the clean fuels program, directing the Administrator to issue standards "for Ultra-Low Emission Vehicles ('ULEV's) and Zero Emissions Vehicles ('ZEV's)" and to conform certain such standards "as closely as possible to standards which are established by the State of California for ULEV and ZEV vehicles in the same class.").

incentives for ZEVs and the infrastructure necessary to support them.[305] The IRA thus continues and amplifies the longstanding theme of Title II that all technologies, including non-ICE technologies, are to be considered in determining the most effective ways to achieve emissions reductions from the mobile source sector.

iv. A ZEV sales requirement is a "standard" within the meaning of Section 202(a)(1)

Having established that the statute authorizes consideration of electrification technologies, and that a vehicle that does not contain an engine may be the subject of a standard set pursuant to CAA section 202(a)(1), we next consider the form a standard may take, and specifically, whether it may take the form of a complete prohibition on emissions. We conclude the plain meaning of a "standard applicable to the emission of any air pollutant" encompasses a standard prohibiting the emission of an air pollutant. This is consistent with *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.*, 541 U.S. 246 (2004), where the United States Supreme Court interpreted the term "standard" in section 209(a) and found that same usage to be consistent through Title II:

> Today, as in 1967 when § 209(a) became law, "standard" is defined as that which "is established by authority, custom, or general consent, as a model or example; criterion; test." Webster's Second New International Dictionary 2455 (1945). The criteria referred to in § 209(a) relate to the emission characteristics of a vehicle or engine. To meet them the vehicle or engine must not emit more than a certain amount of a given pollutant, must be equipped with a certain type of pollution-control device, or must have some other design feature related to the control of emissions. This interpretation is consistent with the use of "standard" throughout Title II of the CAA (which governs emissions from moving sources) to denote requirements such as numerical emission levels with which vehicles or engines must comply, e.g., 42 U.S.C. § 7521(a)(3)(B)(ii), or emission-control technology with which they must be equipped, e.g., § 7521(a)(6). [306]

[305] *See* Inflation Reduction Act, Pub. L. No. 117-169, at §§ 13204, 13403, 13404, 13501, 13502, 50142-50145, 50151-50153, 60101-60104, 70002 136 Stat. 1818, (2022), available at https://www.congress.gov/117/bills/hr5376/BILLS-117hr5376enr.pdf.
[306] *Id*. at 252–53.

A requirement for a vehicle to emit no air pollutants easily satisfies the Court's interpretation of standard. For example, a zero emissions limit is a "criteria" "relate[d] to the emission characteristics of a vehicle or engine." It is also a requirement to "not emit more than a certain amount of a given pollutant" and a "numerical emission level[] with which vehicles or engines must comply." At issue in the case, moreover, were certain ZEV requirements, and the Court specifically indicated certain such ZEV requirements were "likely" standards under CAA section 209(a).[307]

Commenters essentially argue that a standard is only "applicable to the emission of an air pollutant" if the standard allows for some amount of emissions, so that a requirement to control 99% of a pollutant is a "standard applicable to" that pollutant, but a requirement to control 100% of emissions is not. Nothing in the concept of a "standard" supports this conclusion. Commenters' interpretation would mean that EPA has been delegated authority to address the problem of motor vehicle emissions to a high degree of effectiveness but has not been delegated authority to completely solve the problem even at a reasonable cost. This cannot have been the intent of Congress and is at odds with the interpretation of the Supreme Court noted above. To the contrary, it would thwart the intent of Congress if EPA categorically excluded control technologies simply by virtue of their effectiveness.

The remainder of CAA section 202(a)(1) further supports this plain meaning. The second sentence provides that standards pursuant to the first sentence shall apply for the "useful life" of the motor vehicle "whether such vehicles and engines are designed as complete systems or

[307] *Id*. at 258; *see also Ass'n of Int'l Auto. Mfrs. v. Comm'r, Mass. Dep't Envtl. Prot*., 208 F.3d 1, 7 (1st Cir. 2000) ("We agree with both the EPA and the Second Circuit that the ZEV mandates are standards as that term is used in §§ 209 and 177 of the CAA." (Citing *American Auto. Mfrs. Ass'n v. Cahill*, 152 F.3d 196 (2d Cir. 1998)). Moreover, to the extent that the definition in section 302(k) is relevant, it also contravenes the commenters' argument, as it too contains no exclusion for a zero-emission requirement.

incorporate devices to prevent or control such pollution." A self-propelled vehicle with zero combustion emissions, such as a BEV or a fuel cell electric vehicle, is a "complete system" that "prevent[s]" pollution. The requirement to set standards for the useful life of a vehicle is therefore in harmony with the plain meaning of the scope of standard-setting authority in the first sentence of section 202(a)(1) and precludes commenters' argument that individual vehicles subject to a standard must cause or contribute to harmful air pollution.

As noted, commenters make the closely related argument based on the first sentence of CAA section 202(a)(1) that, because ZEVs do not emit pollutants from combustion, a class or classes of ZEVs could not be "reasonably anticipated to endanger public health or welfare." This argument appears to be made in conjunction with the claim that it would be arbitrary to combine both ICE vehicles and ZEVs in a single class.[308] As an initial matter, we note that motor vehicles designed for highway use generally are equipped with air conditioning systems, and such systems invariably leak chemical refrigerants that volatize to form air pollution. EPA regulates such leaks, including under its section 202(a) authority.[309] In this sense, no motor vehicles certified for introduction into commerce in the U.S. are completely emissions-free.

Commenters raised this same issue in their comments on the LMDV Multipollutant Rule, which as noted above considered both ICE vehicles and BEVs as subject to the same light duty fleet average emission standards. In response, EPA noted that the CAA defines a "motor vehicle" by function[310] rather than by, for example, type of powertrain or another vehicle characteristic.

[308] The commenters generally do not develop this argument, asserting that the combination of ICE vehicles and ZEVs in a regulated class would be arbitrary because there are "fundamental differences" between the two. *See* API, p.7.
[309] See 89 FR 27918/3-19/3.
[310] CAA section 216(2) defines a "motor vehicle" as "any self-propelled vehicle designed for transporting persons or property on a street or highway."

Where CAA section 202(a) explicitly addresses EPA's authority to establish classes it likewise suggests that a focus on functionality falls within EPA's discretion, stating "the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, or other appropriate factors."[311]

In the LMDV Response to Comments we noted that an endangerment finding and categorization for purposes of setting emissions standards are distinct, sequential steps in the regulatory process. In making endangerment findings for criteria pollutants and for GHGs, EPA identified broad groupings of motor vehicles (such as light and medium duty vehicles), with no qualification as to the level of emissions or powertrain. Notably, the endangerment finding for GHGs emitted from motor vehicles was upheld after extensive litigation.[312]

As noted, some commenters appear to read CAA section 202(a)(1) to mean that ZEVs are beyond EPA's regulatory authority because they do not cause, or contribute to, air pollution which endangers human health and welfare. That misreads the statutory text. Section 202(a)(1)'s focus on regulating emissions from "class or classes" indicates that Congress was primarily concerned by the ambient air pollution problem generated by a class of vehicles, as opposed to a direct emissions impact from individual vehicles. Accordingly, Congress authorized EPA to regulate *classes* of vehicles, and EPA has previously concluded that pollutants from the *classes* of passenger cars, light-duty trucks, and medium and heavy-duty trucks, cause or contribute to dangerous pollution.[313] The *classes* of vehicles defined by EPA for purposes of endangerment

[311] CAA section 202(a)(3)(A)(ii). This section applies to standards established under section 202(a)(3), not to standards otherwise established under section 202(a)(1). But it nonetheless provides guidance on what kinds of classifications and categorizations Congress thought were appropriate.
[312] *Coal. for Responsible Regul., Inc. v. EPA*, 684 F.3d 102, 117 (D.C. Cir. 2012) ("We ultimately conclude that the Endangerment Finding is consistent with *Massachusetts v. EPA* and the text and structure of the CAA and is adequately supported by the administrative record.").
[313] See, e.g., 74 FR 66496 (Dec. 15, 2009) (motor vehicle GHG endangerment finding).

findings, both criteria and GHG pollutants, include BEVs alongside ICE and hybrid vehicles. And EPA has consistently viewed passenger cars, light-duty trucks, and medium and heavy-duty trucks as classes of motor vehicles for regulatory purposes, including in our prior GHG rules.[314]

Subsequent Congressional enactments support this reading of the statute under which EPA may classify vehicles by size, weight, and functionality, as opposed to by powertrain or emissions levels. For example, in the 1990 Amendments, Congress chose to establish certain regulations for classes of light-duty vehicles and trucks, see, *e.g.*, CAA section 202(g), and in doing so expressly relied on EPA's regulatory definitions of "light-duty truck" and "light-duty vehicle," which likewise relied on characteristics related to size, weight and functionality, but were silent as to power source or amount of pollutants emitted.[315] In multiple tax credit and incentive provisions, Congress further explicitly recognized that EPA's CAA section 202 standard-setting authority extends to regulating internal combustion engine and electric vehicles as members of a single class. For example, in the 2009 American Recovery and Reinvestment Act (ARRA), Congress expressly referenced EPA's Tier II light-duty vehicle standards. The Tier II light-duty standards explicitly created a compliance scheme that credited ZEVs, alongside hybrids and internal combustion vehicles.[316] In the 2009 ARRA, Congress created various tax credits for advanced internal combustion engine, hybrid, fuel cell, and electric vehicles, all of

[314] EPA does not intend to suggest California must make the exact same vehicle and engine classifications as EPA does. Rather, the point is simply that section 202(a) permits classifications based on factors like size, weight, and functionality, as opposed to mandating classifications based on whether a vehicle is a ZEV or ICE.
[315] *See* 42 U.S.C. § 7550(7); 40 C.F.R. § 86.082-2; 46 Fed. Reg. 50464, 50476-77 (Oct. 13, 1981).
[316] 65 Fed. Reg. 6698 (Feb. 10, 2000).

which were conditioned on such vehicles meeting the same Tier II vehicle standards prescribed by the Administrator.[317]

Commenters' suggestion that the class must exclude BEVs would also be unreasonable and unworkable. *Ex ante*, EPA does not know which vehicles a manufacturer may produce and, without technological controls including add-on devices and complete systems, all of the vehicles have the potential to emit dangerous pollution.[318] Therefore, EPA establishes standards for the entire class of vehicles, based upon its consideration of all available technologies. It is only after the manufacturers have applied those technologies to vehicles in actual production that the pollution is prevented or controlled. To put it differently, even hypothetically assuming EPA could not set standards for vehicles that manufacturers intend to build as electric vehicles—a proposition which we do not agree with—EPA could still regulate vehicles manufacturers intend *not* to build as electric vehicles and that would emit dangerous pollution in the absence of EPA regulation.[319] When regulating those vehicles, Congress explicitly authorized EPA to premise its

[317] See 26 USC 30B(b)(3)(B), (c)(3)(A)(iv), (d)(3)(A)(ii), (h) (providing tax credits for fuel cell, advanced lean burn technology, and hybrid motor vehicles on the condition that such vehicle receives "a certificate that such vehicle meets or exceeds the Bin 5 Tier II emission level established in regulations prescribed by the Administrator of the Environmental Protection Agency under section 202(i) of the Clean Air Act" and otherwise "is in compliance with the applicable provisions of the Clean Air Act for the applicable make and model year of the vehicle"), 26 USC 30D(c)(3)(A), (10) (2006 ed. & supp. II) (same for plug-in electric vehicles); *see also* 42 USC 17013(a)(1)(A)(i), (a)(5) (identifying "ultra-efficient vehicles," which include those "operating on gasoline or diesel fuel," hybrids, and "fully electric vehicles," as all meeting certain Tier II emission standards), 26 USC 133(f)(1)(H), (f)(3), (defining "low emission and energy-efficient vehicles" to include those that both comply with certain Tier II emission standards and are "alternative fuel vehicles," including various liquid fuels, "hydrogen" and "electricity (including electricity from solar energy)").

[318] For example, manufacturers in some cases choose to offer different models of the same vehicle with different levels of electrification. And it is the manufacturer who decides whether a given vehicle will be manufactured to produce no emissions, low emissions, or higher emissions controlled by add-on technology.

[319] In other words, the additional BEVs the LMDV Rule projected in the modeled central case analysis exist in the baseline case as pollutant-emitting vehicles with ICE. We further note that it would be odd for EPA to have authority to regulate a given class of motor vehicles so long as those vehicles emit air pollution at the tailpipe, but to lose its authority to regulate those very same vehicles should they install emission control devices to limit such pollution or be designed to prevent the endangering pollution in the first place.

standards for those vehicles on a "complete system" technology that prevents pollution entirely, like BEV technologies.

As we explained in the LMDV rule, we also do not agree with commenters that it is per se arbitrary to group ICE vehicles and ZEVs together: ICE vehicles and ZEVs are both "motor vehicles" as defined by the Act, light and medium duty ICE vehicles and ZEVs are members of the same classes of light- and medium-duty vehicles with similar weight and function, and both vehicles employ technologies (including powertrain and other electrification technologies) to control and prevent dangerous emissions—with the principal difference being that ZEVs employ a higher degree of powertrain electrification than ICE vehicles.

As noted, the LMDV Response to Comments contains a detailed discussion on these topics.[320] That discussion is incorporated here by reference, and it is to some extent tailored to the details of the LMDV Multipollutant Rule. Naturally, therefore, the LMDV discussion does not discuss the scenario of a hypothetical ZEV sales requirement promulgated pursuant to CAA section 202(a)(1). We turn to that issue next.

v. The ZEV standard is not a design or technology standard

The ZEV standard in the ACC II regulations is expressed as a standard applicable to tailpipe emissions of specific air pollutants.[321] The zero emission standard is neutral toward the technologies requisite to achieve that standard, which in this case may be BEVs, fuel cell electric vehicles (FCEVs), PHEVs,[322] or a combination thereof. Some commenters claim that a zero

[320] LMDV Response to Comments, pp.343–354.
[321] CARB defines a zero-emission vehicle as one that "produce[s] zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas, excluding emissions from air conditioning systems, under any possible operational modes or conditions." 13 CCR 1962.4(b).
[322] PHEVs may constitute up to 20 percent of a manufacturer's fleet in each year for purposes of complying with the ACC II ZEV standard. *See* 13 CCR 1962.4(e)(1)(A).

emission standard mandates, rather than reflects, use of a particular design or technology, and that CAA section 202(a)(1) does not authorize a standard mandating a particular design or technology. We disagree that the zero-emission standard in ACC II is a design or technology standard. A technology or design standard is one that requires the regulated entity to use a particular technology or design. But the ACC II sales requirement does not impose any such mandate. Rather, it sets emissions rates (of zero) applicable to certain air pollutants. Manufacturers may choose to meet the emissions rates through multiple technology choices, including BEV, FCEV, and PHEV, or any other technology they develop that can satisfy such emissions rates, including technologies not identified by CARB during the ACC II rulemaking.

In setting these emission rates, CARB relied on its consideration of various technologies, among which are electrification technologies that entirely prevent emissions. But this kind of approach is used in setting motor vehicle emission standards generally (including standards that are not ZEV requirements), and, for EPA, this kind of technology-based standard-setting approach is required by CAA section 202(a). That CARB considered various technologies does not somehow convert the ACC II ZEV program into something different in kind. That is, the process by which the ZEV standard was set is fundamentally the same as how standards are set for any class of motor vehicles: the evaluation of technologies yields a conclusion as to the degree of emissions reduction achievable, which then becomes the numeric emission standard.

This relationship of a particular technology to an emission standard is historically illustrated by one of the most familiar of vehicle pollution control technologies: the catalytic converter. When EPA in the early 1970's set emission standards for cars based on the expected performance of the then nascent catalytic converter technology, no other technology of similar

effectiveness was available or on the near-term horizon.[323] As we noted in the preamble to the LMDV Multipollutant Rule, "the statute requires EPA to demonstrate that standards can be met by the development and application of technology, but it does not require the Agency to identify multiple technological solutions to the pollution control problem before mandating more stringent standards."[324]

Commenters that claim that the ZEV requirement is a "ZEV mandate" -- that is, a design or technology standard -- fail to explain why the relationship between the numeric standard and the technology (or, in this case, multiple technologies including BEVs, FCEVs, and PHEVs) it reflects is any different when the standard requires complete prevention of emissions as opposed to only a partial reduction. In other words, commenters fail to explain why, for instance, a requirement to reduce particulate matter by 90 percent based on feasibility of PM filters is an emission standard, but a requirement to reduce emissions by 100 percent based on feasibility of fully effective PM filters is not. We conclude that the plain meaning of "standard" provides no basis for such a distinction. In each case there is a determination of the feasibility and availability of a particular technology or design upon which the emission standard is set.[325]

vi. Section 202(a) would authorize the phase in of a ZEV standard applicable to vehicle fleets

As noted above, the LMDV Multipollutant Rule, unlike ACC II, does not impose ZEV regulations. Rather, the LMDV Multipollutant Rule sets numeric standards compliance with

[323] LMDV Response to Comments, p. 315.
[324] 89 FR 27897 n.509 (April 18, 2024).
[325] In granting a waiver in 2006 for an earlier version of the State's ZEV program, EPA responded to similar comments, in a Decision Document (see EPA-HQ-OAR_2004-0437), in part by opining that section 202(a) would authorize the setting of a design standard. Although, as was the case in 2006, we find it unnecessary to rely on this authority for the instant waiver action; we believe the reasoning articulated in 2006 remains valid. We incorporate the relevant reasoning of this decision by reference. See *California State Motor Vehicle Pollution Control Standards: Waiver of Federal Preemption, Decision of the Administrator (2005 and Subsequent Model Year Zero-Emission Vehicle (ZEV))*, at pp.35-46. 71 FR 78190 (December 28, 2006).

which is measured by the average emissions in a vehicle fleet sold by a manufacturer. The standard considers BEVs and PHEVs as a means (but not the exclusive means) by which a manufacturer may achieve compliance. In responding to commenters' argument that CAA section 202(a) categorically precludes adoption of ZEV regulations, we examine whether there is any meaningful difference for this purpose—that is, in terms of statutory authority under section 202(a)—between a standard that allows averaging of performance across vehicles, like the LMDV Multipollutant Rule, and one that requires meeting a percentage of vehicles sold by a manufacturer, as is the case for CARB's ZEV requirements. We conclude there is no meaningful difference; the section 202(a) authority, including the authority to establish standards based on consideration of electrification technologies, applies equally to both forms of standards.

The same considerations regarding the plain meaning and structure of the statute, legislative history, and ratifying Congressional action that support consideration of electrification in setting fleet average emissions standards would be relevant if EPA were to consider a zero emission standard applicable as a percentage of fleet based on available technologies including BEVs, FCEVs, or other technologies. One need look no further than the standards set by Congress in the statute to confirm that standards set as a percentage of a fleet are an acceptable form of an emission standard.[326] While the authority to set such standards is readily apparent, the point for present purposes is that electrification technologies may be considered in setting a fleet percentage standard just as they may in setting a fleet average standard.

It is likewise readily apparent that CAA section 202(a) authorizes a standard to be structured to phase-in emission reductions with incremental increases in stringency over time.

[326] See CAA sections 202(a)(6), (g)-(j).

Nothing in the plain language of the statute suggests that such an approach, based on an expectation of gradually increased capacity for compliance, is prohibited or disfavored. To the contrary, that Congress specifically mandated a phase-in of standards in sections 202(g)-(j) clearly demonstrates that a phase-in is an appropriate means of allowing an industry to adjust over time. It follows that the phase-in approach in the ACC II ZEV regulations is consistent with EPA's section 202(a) authority.

vii. Section 202(e) does not limit EPA's authority to adopt a ZEV standard.

One commenter asserted that CAA section 202(e), which provides that the EPA "may" postpone action on a certification request for a motor vehicle using a new power source or propulsion system under some circumstances, indicates that EPA must make a separate endangerment finding regarding BEVs.[327] This commenter's argument is flawed in numerous ways. First, CAA section 209(b)(1)(C) requires consistency only with section 202(a). The commenter fails to explain how section 202(e) could be a basis for denial of a waiver. Second, even as it applies to EPA, section 202(e) imposes no requirement whatsoever, but rather gives EPA discretion to delay certification where a motor vehicle emits pollutants for which no standards have been set. As noted in the LMDV Response to Comments, section 202(e) supports rather than undermines the conclusion that section 202(a) authority should be broadly interpreted.[328]

It is important to reiterate that EPA is not here attempting to support the adoption of any standard pursuant to CAA section 202(a)(1). In particular, we are not asserting that a factual record presently exists in the context of this administrative proceeding that would support a

[327] API, p.7.
[328] LMDV Response to Comments pp.358–359.

national ZEV sales requirement of any particular stringency. Our only finding here relates to an assessment of the commenters' assertion that section 202(a) categorically does not authorize a ZEV sales requirement—what commenters term "mandate"—of any kind. For the reasons explained above, we conclude that the commenters' categorical argument is incorrect.

4. Feasibility, lead time, costs, and safety considerations under section 202(a)

In this section, we consider whether California's standards are not consistent with CAA section 202(a). Specifically, we evaluate whether the opponents have met their burden of proof to demonstrate that (1) vehicle emission control technologies to achieve the emission standards are unavailable; (2) to the extent such technologies are unavailable, there is inadequate lead time to develop such technologies; and (3) the cost to develop and implement the vehicle emission control technologies is excessive.[329] We also assess whether opponents have shown that the California standards present an unreasonable risk to safety.

The balance of this section is organized as follows. In subsection (a), we summarize and respond to comments regarding feasibility and lead time of the LEV IV program. Subsection (b) addresses comments regarding feasibility and lead time of the ZEV program. Subsection (c) evaluates comments regarding the costs of compliance for the ACC II regulations, focusing on

[329] *See* 88 FR at 20705-20706. "Previous waiver decisions are fully consistent with *MEMA I*, which indicates that the cost of compliance must reach a very high level before the EPA can deny a waiver. Therefore, past decisions indicate that the costs must be excessive to find that California's standards are infeasible and therefore inconsistent with section 202(a)." *citing* 47 FR 7306, 7309 (Feb. 18, 1982); 43 FR 25735 (Jun. 14, 1978); 46 FR 26371, 26373 (May 12, 1981). EPA has followed this approach in a number of previous waivers. *See, e.g.*, 38 FR 30136 (Nov. 1, 1973); 40 FR 30311 (July 18, 1975); 71 FR 335 (Jan. 4, 2006) (2007 Engine Manufacturers Diagnostic standards); 70 FR 50322 (August 26, 2005) (2007 California Heavy-Duty Diesel Engine Standards); 77 FR 9239 (February 16, 2012) (HD Truck Idling Requirements); 78 FR 2111, 2132 (Jan. 9, 2013); 79 FR 46256 (Aug. 7, 2014) (the first HD GHG emissions standard waiver, relating to certain new 2011 and subsequent model year tractor-trailers); 81 FR 95982 (December 29, 2016) (the second HD GHG emissions standard waiver, relating to CARB's "Phase I" regulation for 2014 and subsequent model year tractor-trailers); 82 FR 4867 (January 17, 2017) (On-Highway Heavy-Duty Vehicle In-Use Compliance Program).

the vehicle technology costs that are relevant under the third prong analysis.[330] Subsection (d) addresses comments on safety.

a. LEV IV Feasibility and Lead Time

Only supportive comments were received on the technological feasibility of the LEV IV criteria pollutant standards. Commenters explained that the necessary technologies for LEV IV already exist at reasonable cost, and supported CARB's explanation of technological feasibility of LEV IV as set forth in its Final Statement of Reasons (FSOR) and waiver application.[331] Commenters explained that technologies for LEV IV are being implemented in a rapidly growing and already large portion of the California vehicle fleet and that momentum for cleaner vehicles is accelerating rapidly. Commenters also noted that many existing vehicles already meet the LEV IV requirements, and those that do not could comply largely through implementation of minor changes using available technologies, software changes, calibration, or catalyst upgrades.[332] Commenters also noted that CARB allows manufacturers flexibility in choosing compliance technologies that best align with their products.

EPA agrees with the commenters that the necessary technology to meet LEV IV already exists at reasonable cost and that manufacturers have adequate lead time to meet the LEV IV standards. EPA has assessed CARB's demonstration of LEV IV technical feasibility and lead time submitted as part of its waiver request. CARB explained how existing technology can be applied to meet each LEV IV exhaust standard for light-duty vehicles given the allotted lead

[330] Discussion of additional costs, such as the costs to consumers, can be found in the EPA SRTC.
[331] California's explanation of the technological feasibility of the LEV IV criteria pollutant regulations is contained in the Waiver Request Support Document, pp.45-47 and in the FSOR, Appendix B in EPA-HQ-OAR-2023-0292-0036. Environmental and Public Health Organizations, p.28; States and Cities, p.23.
[332] Environmental and Public Health Organizations, pp.28-29.

times.[333] CARB stated that light-duty vehicle manufacturers that do not already meet the non-methane organic gas and nitrogen oxides (NMOG+NOx) standards on the 25°C FTP test cycle[334] can do so with calibration changes to combustion airflow, fuel injection and spark timing to accelerate catalyst warmup time after an engine start, and possibly with available hardware changes such as larger volume catalysts, increased precious metal loading, optimized thermal management, reduced thermal mass turbochargers, improved catalyst washcoats, and improved fueling systems. CARB described how partial soak NMOG+NOx standards can be met using engine control strategies and hardware systems similar to those currently used in LEV III and federal Tier 3 compliant vehicles.

CARB explained how LEV IV standalone standards for NMOG+NOx and CO from light-duty vehicles on the US06 and SC03 test cycles are already being met by many vehicles and the remaining ones can achieve the standards with straightforward catalyst upgrades or calibration changes.[335] CARB stated that over 85% of vehicles already meet the revised US06 PM standards and the remaining vehicles can do so with improved fuel injection systems, engine calibrations or addition of particulate filters. Cold-start US06 standards apply only to PHEVs that have insufficient zero-emission range to complete the test cycle. CARB explained that the best-performing PHEVs already meet the standards, and that other PHEVs can do the same by increasing power available during high-power engine starts either by activating the engine at a higher level of battery charge or improving emissions controls.

[333] Waiver Request Support Document, pp.45-47.
[334] The FTP test is one cold-start urban dynamometer driving schedule (UDDS) followed by a hold period followed by a hot-start UDDS, where the UDDS is defined in section (a) of Appendix I to 40 CFR Part 86.
[335] The US06 and SC03 driving schedules are defined in sections (g) and (h), respectively of Appendix I to 40 CFR Part 86.

CARB also addressed the feasibility of LEV IV exhaust standards for MDVs.[336] CARB testing showed that some gasoline MDVs already meet the new standards, and that many diesel MDVs are close to meeting the low load standards but will require hardware/software changes to meet the high load standards. CARB demonstrated that for vehicles that do not already meet the standards, technologies are available to meet the standards within allotted lead times. Specifically, aggressive driving standards for MDVs can be met by incorporating increased catalyst content, changing catalyst wall characteristics, moving catalysts closer to the engine, making engine calibration changes, improving injection and combustion designs, and improvements to combustion air-to-fuel ratios.

EPA has considered CARB's detailed assessment demonstrating the feasibility of the LEV IV standards and its conclusion that the lead time provided is adequate given auto manufacturers' normal design and production cadence. In our technical judgment, EPA agrees with CARB's assessment of the technological feasibility of the LEV IV standards and that the standards can be met within the lead time provided. EPA's assessment is consistent with the universally supportive public comments on this topic. Based on the record, EPA cannot deny the waiver request for the LEV IV regulations based on inconsistency with CAA section 202(a).

b. ZEV Technology Feasibility and Lead Time

While EPA received many comments purporting to address ZEV technology feasibility, only a small fraction of these comments specifically addressed the issues that are relevant to EPA's waiver review under the third prong, that is, the vehicle technologies necessary to comply with the ZEV standards and the lead time for manufacturers to develop and apply those

[336] Waiver Request Support Document, pp.47-48.

technologies. Most comments that purported to address the feasibility considerations relevant under the third prong instead presented arguments relating to factors beyond the regulated entity, such as consumer acceptance, vehicle affordability, effects on the electric grid, availability of public charging infrastructure, and other topics. Although commenters often referred to these topics to support their position that the ZEV standards either are or are not feasible, as explained below, topics such as these are not within the scope of factors EPA may consider in evaluating consistency with CAA section 202(a).

For example, one commenter stated it was taking "no position on the factual validity of California's assessment of ZEV technology"[337] yet expressed concerns about issues such as the technological neutrality of the standards, the consumer impacts, and the availability of charging infrastructure.[338] As another example, a commenter asserted that the ZEV program lacked technological feasibility, but supported that assertion with concerns about consumer impacts.[339] Similarly, comments received from the primary automobile industry trade association did not dispute the feasibility of ZEV technology itself[340] but instead were concerned with whether it is feasible to apply ZEV technology to the new vehicle fleet in the proportions and timeframe required given concerns regarding charging and refueling infrastructure and supportive policies (such as purchase incentives and consumer education), particularly in states other than California.[341]

[337] API, p.3.
[338] *Ibid*, pp.14-16.
[339] CEA, EPA-HQ-OAR-2023-0292-0059, p.2.
[340] "Automakers do not dispute the feasibility of ZEVs from a technology standpoint. Over 111 models of electric vehicles are available in the new vehicle market in just about every segment and price point." from Alliance for Automotive Innovation, EPA-HQ-OAR-2023-0292-0182.
[341] Alliance for Automotive Innovation, EPA-HQ-OAR-2023-0292-0182, p.2.

These comments are not within the scope of EPA's legal consideration of consistency with CAA section 202(a), and EPA's position is that we legally lack authority to deny a waiver on the bases advanced by these commenters. Nonetheless, in the alternative, EPA has evaluated these comments. To the extent a reviewing court finds these comments are relevant as a legal matter to EPA's decision, EPA nonetheless finds that as a factual matter they are unpersuasive with regard to the ACC II program in California, that the record as a whole demonstrates California has reasonably considered and addressed such comments, and that they do not preclude EPA from granting the waiver. Comments referring to these topics are summarized and responded to in EPA's SRTC.[342] In general, for the remainder of this section, we summarize only the comments that address the vehicle technologies used to meet the ZEV standards and the lead time for manufacturers to develop and apply those technologies, and we provide EPA's responses to those comments.

Many commenters supported CARB's assessment that the ZEV standards are feasible within the lead time provided. Manufacturers that produce only ZEVs attested to the feasibility of the ZEV standards within the lead time provided, explaining that their vehicle production already meets the MY 2035 ZEV standards and thus demonstrate that the standards are feasible.[343] One of the ZEV-only manufacturers provided an analysis to support its view that the ZEV targets are readily achieved in the timeframe provided, based on an assessment of continued and accelerated ZEV market growth projected by several third-party analysts.[344]

Another commenter stated that the ZEV program would provide regulatory certainty for the supply chain that supports electrification, and provided detailed data and analysis to support

[342] EPA SRTC. We also respond to comments regarding the impacts on section 177 states in Section IV.B.
[343] Rivian.
[344] Tesla, pp.5-7.

its view that electrification aligns with existing and planned investments being made throughout the supply chain, including critical materials availability and battery manufacturing capabilities, indicating that the program is feasible for industry to implement.[345] Another commenter stated that ZEV technology is currently available, widespread, and expanding rapidly, and indicated that the lead time provided is "more than adequate, especially given the rapidly advancing technology."[346] Another commenter stated that the ZEV requirements are feasible because they phase in gradually and provide several flexibilities, such as allowing PHEVs to contribute to the ZEV requirements and providing manufacturers with various credit opportunities.[347] Another commenter supported its view that the ACC II regulations are feasible within the lead time provided based on a detailed analysis of several third-party projections of ZEV market growth in California as well as the U.S. and globally, an assessment of manufacturer product development and ZEV model introductions, and ZEV incentive programs both within California and at the federal level, including through the historic investments provided under the Bipartisan Infrastructure Law (BIL) and the IRA to support ZEV market development, including battery manufacturing.[348]

A coalition of state attorneys general including California commented that because the technologies necessary to meet both the LEV IV and ZEV standards are already widely in the market today (citing that ZEVs comprised 25 percent of new vehicle sales in California in 2023, a 30 percent increase from the prior year), lead time—and not technology feasibility—is thus the only relevant factor for EPA to consider.[349] This commenter stated that manufacturers have

[345] ZETA, EPA-HQ-OAR-2023-0292-0199, p.25-36.
[346] CCAE, p.7.
[347] Environmental and Public Health Organizations, p.30.
[348] ZETA, EPA-HQ-OAR-2023-0292-0199, pp.30–34.
[349] States and Cities, p.23.

sufficient lead time to meet the ZEV standards, citing vehicle manufacturers' stated plans to significantly accelerate ZEV production within the time period of the ACC II regulations, as well as projections of increased ZEV market demand and continued technological developments.[350]

The above supportive comments favor granting the waiver, and many provide additional record evidence, including concrete data and analysis, in support of the feasibility of California's standards within the lead time provided. Other commenters, however, asserted that California's standards were not feasible within the lead time provided. Many of these commenters made generalized allegations of infeasibility that are insufficient to satisfy their burden of proof in light of California's and the supportive commenters' detailed demonstration of feasibility. Some commenters raised more specific concerns, including those relating to the availability of batteries and critical minerals used in ZEVs, as well as the ability of ZEVs to perform in the same way as ICE vehicles in certain applications. We discuss these adverse comments below, beginning with the availability of batteries and critical minerals.

Because batteries for vehicles are a vehicle technology, the supply of minerals essential to the manufacture of batteries is relevant to the feasibility of vehicle technologies. All new motor vehicles (including ICE vehicles) in the United States use batteries, and all such batteries use minerals.[351] However, different types of vehicles rely on different kinds of battery technology, which in turn require different types and amounts of minerals. Some commenters asserted the supply of critical minerals is a barrier to the feasibility of the ZEV standards.[352] Other commenters, however, did not address battery and critical minerals availability in the context of feasibility under the third prong, but suggested that EPA deny the waiver because manufacturers'

[350] *Id*. pp.23–26.
[351] Other elements of motor vehicles, for example the catalytic converters on ICE vehicles, also use minerals.
[352] Valero (but see ZETA, CARB).

increasing use of batteries and critical minerals for ZEVs could possibly reduce the energy independence or energy security of the United States. For example, a commenter asserted that because some critical minerals are currently sourced from outside the U.S., the increased demand resulting from the State's ZEV program would make the U.S. less energy independent, implying that this makes the program infeasible and/or conflicts with the energy independence aims of the Energy Independence and Security Act (EISA).[353] This commenter claimed that "there is no viable path for domestic production on the scale and timeframe necessary to support ACC II."[354] Another commenter stated that "granting this waiver will make the United States more reliant on China for the critical materials needed for EV [electric vehicle] batteries."[355] Another commenter provided an Appendix with a discussion of issues related to critical minerals and the supply chain.[356]

Regarding comments suggesting that the ZEV control technology is infeasible or lacks the necessary lead time because of uncertainties about the availability or source of critical minerals, EPA disagrees. Commenters have not provided data or evidence showing that critical minerals will not be available in quantities or at a price to enable compliance with the ZEV program. Mere unsubstantiated allegations regarding potential future events, absent supporting data and evidence, are not sufficient to meet the waiver opponents' burden of proof. This is particularly true given the existing availability of ZEV technologies, their existing commercial deployment and availability in the State, and the detailed showing of feasibility made by California and supportive commenters.

[353] Illinois Corn Growers, p.35.
[354] *Id.*, p.35.
[355] Sen Shelley Moore Capito, *et al.*, EPA-HQ-OAR-2023-0292-0183, p.1.
[356] API, Appendix A.

Some commenters focused on the likelihood that some amount of critical minerals will need to be sourced from outside the U.S. and assert that this constitutes infeasibility of ZEV technology, inadequate lead time to comply, or conflicts with the aims of EISA. The potential need to acquire minerals or materials from outside the U.S. does not undermine record evidence showing that ZEV technology is feasible within the lead time provided. These minerals and materials are readily available in the market, and the commenters offer only vague speculation regarding diminishment in future availability. Although a commenter asserts that "there is no viable path for domestic production on the scale and timeframe necessary to support ACC II," there is no requirement nor expectation that all content used in vehicle production must originate from domestic sources in order to be considered feasible.[357] CARB addressed this issue in its rulemaking process.[358] More specifically,

> Staff expect the current supply chain challenges will be resolved by the time ACC II begins in model year 2026. Staff observe a dramatic increase in the investments and construction for procuring critical materials, manufacturing of batteries and critical ZEV components, and recovery of materials from used batteries. Additionally, the federal Inflation Reduction Act incentivizes expanded domestic production of batteries, and the durability requirements help reduce the amount of raw materials needed.[359]

Nothing in the Act suggests that CARB can only establish regulations based on supply chains that are entirely domestic, or that EPA's review under the third prong or CAA section 202(a) generally is limited to only purely domestic supply chains. To the contrary, for example, the Act contemplates that imported vehicles and engines are subject to the standards, and by extension that manufacturers may elect to rely on such imported vehicles and engines in

[357] Illinois Corn Growers, p.35
[358] CARB Public Hearing Response, EPA-HQ-OAR-2023-0292-0227, pp.9–10; CARB Response to Comments on Draft EA; FSOR Appendix A, pp.8–11.
[359] FSOR Appendix A, p.11.

compliance.[360] Moreover, such a limitation—that CARB's regulations must depend purely on domestic supply chains—would be completely unworkable in light of the actual market dynamics of the global market for motor vehicles and their parts, not only with respect to ZEVs but with respect to motor vehicles more generally.

Notably, reliance on foreign suppliers is not unique to ZEV technologies. It has been common practice for U.S. automobile manufacturers to use imported content in the production of other types of vehicles and components. The supply chain that supports production of consumer products, including ICE vehicles and ZEVs, is highly interconnected across the world, and it has long been the norm that global supply chains are involved in providing many of the products that are commonly available in the U.S. market and that are used on a daily basis. Whether supply chains are robust is not determined solely by domestic self-sufficiency, but also by whether there exists a diversified supply chain that includes not only domestic production but also trade with Free Trade Agreement (FTA) countries and other economic allies with whom the U.S. has good trade relations.

Commenters' unsubstantiated claims of supply chain insecurity are not strengthened by specific reference to China. Commenters do not present evidence indicating that "reliance" on China is a necessary outcome of increased use of ZEVs, particularly when considering the California market alone, which is much smaller than the total U.S. market. In the LMDV Multipollutant Rule, EPA considered comments similar to those cited above that expressed concern about security issues, reliance on China, and the ability to acquire sufficient minerals to meet the standards. EPA examined the issue of mineral security and the need to secure the supply

[360] *See, e.g.*, CAA section 216(1), (3).

chain for critical minerals, and determined that by continuing to build out a secure and diversified supply chain through development of domestic capacity as well as working with FTA countries and other economic allies, automakers could comply with the Federal standards nationwide without creating undue reliance on China or foreign entities of concern.[361] While the Federal standards differ from the California standards, EPA's assessment of critical minerals was based on a greater volume of plug-in electric vehicles at the national level compared to the volume of vehicles sold in California needing to comply with the California ZEV standards (including when the federal standards are in place);[362] as such, EPA's prior conclusions in the Federal rulemaking apply in the context of this waiver as well.

Regarding assertions that increased demand for critical minerals that may be sourced from other countries would conflict with EISA by making the U.S. less energy independent or secure, we first note that these are not factors that EPA may consider under the third waiver prong. Nothing in the Act suggests that Congress intended the State's ability to adopt and enforce its motor vehicle program is based on EPA's judgments regarding energy independence or security, whether in general or in relation to EISA. Even if these factors were relevant to the waiver decision, EPA disagrees that import of critical minerals raises an issue of energy independence or security. In the LMDV Multipollutant Rule, EPA distinguished clearly between energy security and independence, and mineral security, noting that energy security and energy independence relate to the security and independence of energy sources, and not to minerals that

[361] 89 FR 28030-32, 28041-57 and 28113, (April 18, 2024).
[362] 89 FR 27856, Table 3, (April 18, 2024). While EPA's 2032 central case projected 69% plug-in electric vehicles (including BEV and PHEV) and CARB's ZEV standard is 82% in 2032, in terms of the absolute number of plug-in electric vehicles, which relates directly to demand for critical minerals, EPA's central case projections considered more vehicles than CARB did, given that EPA's analysis assessed compliance across the entire nation, as opposed to just within the State of California.

become constituents of a vehicle and are not consumed as a source of energy.[363] Indeed, California's regulations are expected to have a positive impact on energy security by reducing the demand for foreign sources of petroleum products.[364] And as already explained, we do not find factually persuasive the mineral security concerns that commenters advance.

EPA also received adverse comments regarding the performance of ZEVs versus ICE vehicles in certain applications. One commenter expressed concerns that ZEVs are not suitable for some vehicle use cases, such as rental cars and large pickups, as the commenter believes that ZEVs have too limited range, limited towing and hauling capabilities, and excessive charging times. On that basis, the commenter expressed skepticism that ZEVs can completely replace ICE vehicles by model year 2035.[365]

EPA disagrees that the commenters' claims regarding these use cases indicate infeasibility of the ZEV program.[366] To begin with, the ZEV program allows 20 percent of the ZEV sales requirement in each model year to be PHEVs, which contain ICE and can be refueled at gas stations, and for which any potential concerns about ZEV's limited range or long refueling times on a trip would not apply.

Aside from the continued availability of PHEVs, we note that ZEVs already exist for these use cases, and even more models suitable for such uses are expected to become available in future years. ZEVs are in fact available as rental cars today, demonstrating that such a use is in

[363] 89 FR 28054 (April 18, 2024).
[364] CARB "Public Hearing to Consider the Proposed Advanced Clean Cars II Regulation; Staff Report: Independent Statement of Reasons," April 12, 2022, p.7.
[365] American Car Rental Association (ACRA), EPA-HQ-OAR-2023-0292-0222, p.5
[366] ACRA, p.5.

fact feasible.[367] The assertion that ZEV driving range is insufficient for rental use or for towing or hauling is also not persuasive. ZEVs with range comparable to ICE vehicles exist in the market today and more longer-range ZEV models are planned across more market segments.[368] In addition, manufacturers are in fact already producing ZEVs that perform towing and hauling, as cited by the commenter.

While commenters claim that ZEV models do not perform to the same specifications as ICE models, these comments are unpersuasive because they fail to show the technology is not feasible. For example, while the vehicles cited by the commenter do differ in their towing and hauling ratings, this does not indicate that towing and hauling with ZEVs is infeasible, but rather that it is indeed feasible. While the commenter cites charging times for ZEVs as evidence that these uses are infeasible, charging time only affects the amount of time necessary to complete a task that will require recharging to complete, and does not make the use case infeasible. As we have explained, under EPA's longstanding approach to the third prong, there is a significant distinction between requisite feasibility and the kinds of issues that commenters raise, such as the fact that ICE and ZEV models may have some different characteristics. We note, moreover, that while ICE vehicles may offer what some consumers perceive as superior characteristics in some areas (e.g., lower upfront costs, ability to fuel at gas stations, etc.), ZEVs may offer what other consumers perceive as superior characteristics (e.g., reduced operating and maintenance costs, quieter ride, ability to charge electric vehicles at home, etc.), and the availability of vehicles with any particular characteristic in the California market is not a matter of feasibility, but rather a

[367] For example, the rental car companies Avis, Enterprise and Hertz have online tools allowing customers to reserve an EV rental: https://www.avis.com/en/cars/electric-car-rentals (accessed August 8, 2024); https://www.enterprise.com/en/reserve.html#map_pickup (accessed August 8, 2024); and https://www.hertz.com/rentacar/rental-car-deals/electric-car-rentals/ (accessed on August 8, 2024).
[368] CARB Waiver Request Support Document, May 22, 2023, pp. 51-52.

policy choice reserved to the State. We further address marketability, consumer choice, and related topics in EPA's SRTC.

The test for feasibility under the third prong does not require that every manufacturer be able and choose to produce every single vehicle model as a ZEV.[369] Whether any particular product remains available in California following the emission standards is distinct from the question of feasibility. In response to the ACC II regulations, a manufacturer will determine which product offerings to make available in the California marketplace during the transition to and for showing compliance with the new standards. These market choices could include offering for sale a limited set of products. Congress left for California—not to EPA—the policy choice that California's standards might result in some reduction of model availability for its citizens. Thus, EPA has long held that consistency with CAA section 202(a) does not require that all manufacturers be able to sell all motor vehicle models in California, and EPA has found California standards consistent with section 202(a) in cases where availability of certain models

[369] *See* 87 FR 18887, 18892 (May 3, 1984) ("EPA has long held that consistency with section 202(a) does not require that all manufacturers be permitted to sell all motor vehicle models in California. Rather, as discussed below, EPA has found California standards consistent with section 202(a) in cases where certain models were eliminated but the "basic market demand" was satisfied."). Further, in granting a waiver to California to implement standards more stringent than Federal standards for the 1975 model year, and which would force the introduction of catalyst technology, the Administrator acknowledged: "At these levels, I expect the manufacturers to market a full range of vehicles in California, although there may well be a few models of some manufacturers which do not meet these standards. Any unmarketed models would be expected to be replaced by other models of the same manufacturer, or by vehicles sold by other manufacturers. In this way, competitive pressure is likely to be forced for clean air." 38 FR 10317 (April 26,1973).

in California was suspended but the "basic market demand" for the class of motor vehicles was satisfied.[370].[371]

Considering all the comments and the entire public record, EPA has assessed CARB's demonstration of feasibility and lead time. In our technical judgment, we find that CARB's demonstration is reasonable and reasonably explained. In its Waiver Request Support Document and through the state ACC II rulemaking process, CARB fully assessed the feasibility of the ZEV program and the adequacy of lead time and concluded that the ZEV standards are feasible and the available lead time is sufficient for manufacturers to meet the ZEV standards.[372] EPA further notes that many commenters supplied supportive comments as well as data and analyses that substantiate CARB's findings that the ZEV program is feasible within the available lead time.

[370] 88 FR 20711 n.207; 49 FR 18892 (without deciding whether the "basic demand" test applies in the California waiver case, concluding that the test was met and thus the waiver cannot be denied based on feasibility, and also collecting early authorities including 38 FR 10317, 41 FR 442099, 44213, and *International Harvester v. Ruckelshaus*, 478 F 2d. 615, 640 (D.C. Cir. 1979) ("We are inclined to agree with the Administrator that as long as feasible technology permits the demand for new passenger automobiles to be generally met, the basic requirements of the Act would be satisfied, even though this might occasion fewer models and a more limited choice of engine types. The driving preferences of hot rodders are not to outweigh the goal of a clean environment.")).

[371] The commenters' argument about charging infrastructure has several additional defects, which we address in further detail in the EPA SRTC, Among other things, in the specific situations that the commenter cites, such as needing to recharge on a long trip with a rental vehicle or personal vehicle, the charging time required of a typical home charging apparatus is not relevant because, by definition, the charging needed in these events is likely to be performed at public charging facilities, including fast charging facilities which are specifically designed to provide an appropriate rate of charging on long trips. The commenter has not offered persuasive evidence that public fast charging is unlikely to exist at an appropriate level of availability in the time frame of the program. It is important to note that California has a greater availability of public charging than other states, and CARB has documented in detail how the state intends to build out the public charging infrastructure to support the ZEV program. Further discussion of charging infrastructure is in the EPA SRTC.

[372] Waiver Request Support Document, p.49–57; CARB ISOR, pp.13–20.

CARB noted that ZEV and PHEV technology is available in the market today, with a 26.7 percent share of new vehicle sales in California at the end of third quarter of 2023,[373] and that the ZEV/PHEV market in California is projected to steadily increase, based on continual technology improvements, cost declines, and growing consumer demand. CARB noted that every light-duty vehicle manufacturer has made public commitments to electrify their product line, with numerous manufacturers making announcements specific to producing all-electric vehicles, including Ford, General Motors, Honda, Mercedes-Benz, Stellantis, Volkswagen, and Volvo. Based on manufacturer product plan projections, CARB estimates that 179 ZEV and PHEV model offerings will be available by MY 2025.[374]

CARB also described the technological developments it believes will contribute to continued ZEV market growth. CARB assessed that manufacturers are expanding their ZEV and PHEV offerings across a wider range of market segments, including sport utility vehicles (SUVs) and pickup trucks. CARB assessed these technology improvements as stemming from automakers' shift to dedicated battery electric platforms which allow commonality across models and global markets, which in turn is expected to increase volumes and reduce costs. Other technology improvements noted by CARB include improved batteries, decreased battery and non-battery costs, and manufacturer's accelerated plans to increase range for both ZEVs and PHEVs and to produce more highly capable PHEVs. CARB's assessment projects that from

[373] CARB, EPA-HQ-OAR-2023-0292-0046, p.1. EPA also notes that the ACC I ZEV sales requirement, which reaches a maximum of 25% in 2025, has already been met and exceeded by the California market, and that the market is displaying considerable momentum toward increased ZEV sales in California due to market and governmental factors other than the ACC program. *See also* https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/new-zev. This is consistent with recent data showing that automakers have been significantly over complying and generating credits in recent years. *See* https://ww2.arb.ca.gov/applications/annual-zev-credits-disclosure-dashboard.

[374] Waiver Request Support Document, p.52.

MYs 2026-2035, both ZEVs and PHEVs will be produced with greater efficiency and longer ranges. Regarding comments received by CARB on its Initial Statement of Reasons (ISOR) for the ACC II regulations, CARB also stated, "No comments were submitted disputing that the ACC II regulations provide adequate lead time."[375]

EPA also notes that the ACC II regulations include credit generation provisions whereby manufacturers have the flexibility to phase in differing products over time, the ability to carry a deficit into later model years, the ability to mitigate deficits in later model years, as well as the ability to acquire ZEV credits through trading. The credit generating, deficit carry-forward, and credit trading provisions provide flexibility to manufacturers in planning their compliance with the ACC II regulations.

Based on EPA's technical judgment of the record, EPA finds that CARB's assessment that the ZEV program is feasible within the lead time provided is reasonable and the opponents of the waiver have not met their burden to demonstrate otherwise. Notably, CARB's conclusions about the technical feasibility of ZEVs and PHEVs and the technological progression projected in future model years is generally consistent with that provided by many commenters and of Federal agencies with expertise on these issues, including EPA's own judgments in the recent LMDV Multipollutant rule.[376] Although EPA and CARB may have employed some different data, assumptions, and analyses regarding feasibility and lead time, we find that CARB's choices were within reason. The adverse comments did not demonstrate that such conclusions are unreasonable. Although a few commenters raised concerns about the feasibility of the ACC II regulations, those commenters have not shown specifically how CARB's extensive consideration

[375] Waiver Request Support Document, p.54.
[376] 89 FR 27987-27995 (April 18, 2024).

of feasibility was unreasonable. The many generic and unsubstantiated adverse comments on feasibility do not meet the opponents' burden of proof in light of California's and the supportive commenters' detailed demonstration of feasibility. We also, as explained immediately above, find unpersuasive the more specific allegations, including those regarding battery and critical mineral availability, and the alleged lack of feasibility of ZEVs in specific applications like rental cars and towing.

As noted in Section III.B, EPA's traditional approach is to address the technological feasibility of CARB's entire regulatory program if the requirements of the program, considered in the aggregate and including requirements previously waived by EPA, may pose additional burdens on the manufacturers or require additional lead time to integrate emission technologies. EPA has considered whether there is a need to evaluate the ACC II regulations' discrete components (LEV IV and ZEV standards) as a whole. EPA does not see any technological feasibility conflicts among the different standards. Considering the CARB light-duty vehicle and engine regulations as a whole, EPA also does not see any technological feasibility conflicts. For example, the ACC II regulations replace and strengthen the existing ACC I LEV and ZEV programs, and thus do not conflict with those programs; and the ACC II regulations do not impose any requirements that create a technological conflict with the ACC I GHG program. Further considering the ACC II regulations as a whole in light of the entire CARB on-road program, EPA does not find any technological conflict with other California programs, for example the heavy-duty program (*e.g.*, HD ACT), since the heavy-duty program regulates different vehicles and engines. EPA received no adverse comments regarding any of the potential conflicts discussed in this paragraph. Overall, EPA finds that California's standards, including ACC II, are technologically feasible within the lead time provided.

c. Cost of the ACC II Regulations

Similar to the comments received on feasibility and lead time, many comments received that purport to address the cost of compliance with the ACC II regulations are beyond the scope of EPA's evaluation under the third prong. As we explained in Section III.C.3.b, EPA has historically interpreted CAA section 202(a) to allow consideration of only costs of compliance with the standards. Since the ACC II regulations directly regulate manufacturers of new motor vehicles, the relevant costs under the third prong are the costs of compliance for such manufacturers, *i.e.*, costs that pertain to the manufacturers' development and application of requisite technology to comply with the emission standards. In deciding whether to grant a waiver, EPA may not consider other costs borne by other, unregulated parties, such as consumer costs (including vehicle purchase cost, maintenance and repair costs, fueling costs, and other costs of ownership), cost of charging infrastructure, costs to the liquid fuels industry, or reduced fuel tax revenues.[377] Our position on these comments is the same as for the related comments on feasibility and lead time: while these comments are beyond the scope of our legal consideration under the third prong, we have nonetheless also evaluated them and find them factually unpersuasive. These comments are summarized and responded to along with other out-of-scope issues in EPA's SRTC.[378] The remainder of this section summarizes comments related to vehicle technology costs that are relevant to evaluation of the waiver request.

EPA notes that it previously discussed and found the factual record supportive of a finding that the LEV IV standards are technologically feasible within the lead time provided.

[377] *See, e.g.*, *MEMA I*, 627 F.2d, at 1117-18 ("Section 209's reference to "public health and welfare" refers only to the impacts associated with air pollution, as opposed to the social costs of pollution control."); *id.* at 1118 ("Similarly, there is no indication that Congress intended section 202's "cost of compliance" consideration to embody "social costs" of the type petitioners advance.").
[378] EPA SRTC.

Giving consideration to cost, as necessary, EPA finds the record to support a finding that costs are not excessive. No commenters claimed the costs related to meet the LEV IV standards are excessive. Some commenters criticizing CARB's ZEV costs focused on the costs of batteries and their constituent critical minerals. A commenter presented an analysis that included a critique of the ZEV battery costs used by CARB.[379] In this analysis, it was asserted that the estimate of battery costs was too low, based in part on the observation that the CARB battery costs were lower than the costs that EPA and the National Highway Transportation Safety Administration ("NHTSA") had used in proposals for their respective light-duty rulemakings in process at the time, and that using these costs would produce higher ZEV prices than CARB anticipated.[380] The commenter's analysis also alluded to the potential for increased critical mineral demand resulting from the ACC II regulations leading to higher mineral and battery prices, as well as general uncertainty about future trends in critical mineral prices and impact of IRA 30D and 45X credits. Other commenters stated that availability of critical minerals is not growing fast enough to support cost parity with ICE vehicles or that fluctuating mineral prices and uncertain availability of minerals undermine the case for lower ZEV manufacturing cost in the future.[381]

A commenter supporting the ACC II regulations noted that "as the price of lithium-ion battery cells has declined by more than 80% since March 2022, EVs are on track to reach cost parity with ICE vehicles. … with ICE vehicles is significantly driven by the cost of the vehicles'

[379] AFPM, p.23; Trinity Consultants, Critical Review of the Air Quality Basis for California's Request for a Waiver of Preemption for the Zero Emission Vehicle (ZEV) Component of the Advanced Clean Cars II (ACC II) Regulation (2024). *See also* Attachment B to AFPM comments, pp.15-19.
[380] In addition, it was asserted that the higher prices would reduce fleet turnover enough to offset "some or all" of the emissions reductions CARB has claimed, and further asserted that CARB's ZEV standards therefore will not be as protective as EPA's standards. EPA generally addresses the issue of protectiveness under the discussion of the first prong in Section III.A.1.
[381] Sen. Capito, *et al.*, p.7; Valero, p.19

lithium-ion battery."[382] They continue, "[e]conomies of scale and decreases in the cost of components are driving down the price of new models. Production tax credits from the IRA are expected to cut production costs for batteries and EVs."[383]

Regarding assertions that the battery costs and other vehicle costs used by CARB were too low because they differ from the costs used by EPA and NHTSA in their respective rulemakings, EPA disagrees. As an initial matter, the EPA and NHTSA costs cited by the commenter's analysis were only used in EPA's proposed LMDV Multipollutant Rule and NHTSA's proposed fuel economy standards, respectively.[384] Both agencies used significantly revised cost estimates in their final rules. Specifically, EPA's estimated battery costs increased while NHTSA's costs were significantly reduced.[385]

That said, EPA acknowledges that CARB's costs, including battery costs, are different from those used by either EPA or NHTSA in recent rulemakings. However, while the third prong consistency requirement entails that CARB must consider costs, it does not compel CARB to use the same cost estimates as EPA. California's assessment of technological feasibility in the lead time provided, giving appropriate consideration to costs, is evaluated in the context of its own program. Indeed, the CAA section 209(b) waiver provision is premised on California independently exercising its policy and technical judgment; the fact that CARB identified somewhat different costs than EPA is a natural product of the two agencies exercising their

[382] ZETA, pp.10–11.
[383] *Id.*, p.12.
[384] *See* "CAFE Standards for MYs 2027-2031 Passenger Cars and Light Trucks and Fuel Efficiency Standards for MYs 2030-2035 Heavy-Duty Pickup Trucks and Vans", 89 FR pp.52540–52954 (Jun 24, 2024).
[385] *See* Preamble IV.C.2 of the LMDV Multipollutant Rule (89 FR 27995-28005, April 18, 2024), and Section 3.3.5 of the NHTSA *Technical Support Document for Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond*.

independent technical expertise. In EPA's judgment, CARB's selection of costs, including battery costs, although different from EPA's costs, was both reasonable and reasonably explained.

EPA judges that CARB has reasonably considered the available sources of data and analysis and has made reasonable technical judgments by considering the available literature and the various approaches embodied in the literature. Through our work in developing these costs for purposes of EPA's LMDV Multipollutant Rule, EPA is aware of the general range of battery and other technology cost estimates that are frequently encountered in the literature, and that significant uncertainty exists in any estimate of future costs.[386] This aligns with the general principle that any prediction about the future is necessarily subject to uncertainties, and that different actors (such as CARB and EPA) may thus reasonably make different predictions. Indeed, given the rapid growth in ZEV adoption, the dynamic policy context (including the recent enactment of the IRA), and the inherent difficulties in projecting supply and prices far into the future, it is entirely unsurprising that different expert authorities—whether EPA and CARB, or authorities within the academy or the private sector—reach somewhat different conclusions.[387]

Moreover, while the battery costs used in the CARB analysis are lower than the costs EPA used in developing the LMDV Multipollutant Rule, they are similar to the projections of Bloomberg New Energy Finance (Bloomberg NEF), which closely tracks battery prices that are being paid by manufacturers across the industry and whose material is cited widely in the

[386] *See* 89 FR 28089–28090 (April 18, 2024); LMDV Response to Comments, p.305.
[387] *Cf*. Rural Cellular Ass'n v. FCC, 588 F.3d 1095, 1105 (D.C. Circuit, 2009) ("In circumstances involving agency predictions of uncertain future events, complete factual support in the record for the [agency's] judgment or prediction is not possible or required since a forecast of the direction in which future public interest lies necessarily involves deductions based on the expert knowledge of the agency. Thus, when an agency's decision is primarily predictive, our role is limited; we require only that the agency acknowledge factual uncertainties and identify the considerations it found persuasive.").

literature.[388] For example, Bloomberg NEF's current expectation of $80 per kWh by 2030,[389] which applies to a range of applications including BEVs and PHEVs, is comparable to the CARB 2030 estimate of $72.50 per kWh for BEVs and $101 per kWh for PHEVs.[390] CARB also notes that the battery costs in the CARB analysis are appropriately conservative (i.e., estimating higher battery costs) relative to other Bloomberg NEF projections that include less energy-dense batteries in the heavy duty sector, and also align well with automotive battery cost projections of the National Academies of Sciences (NAS).[391] In EPA's judgment, both the Bloomberg NEF and NAS cost estimates are the product of relevant expertise, based on sound methodologies, and represent costs that are reasonable while accounting for the inherent predictive uncertainties. CARB's estimates of future battery costs are reasonable by comparison to estimates by these credible sources. Commenters have not provided persuasive evidence that battery costs in the range of the Bloomberg NEF or NAS estimates lack credibility or are unreasonable or unlikely.[392]

Similarly, regarding related comments that allude to the potential for increased demand for critical minerals resulting from the ACC II regulations to lead to higher battery prices than assumed by CARB, EPA notes again that predicting future battery prices is subject to many

[388] For example, see Bloomberg New Energy Finance, "Lithium-Ion Battery Pack Prices Hit Record Low of $139/kWh," November 26, 2023, and other Bloomberg publications.
[389] *Id.*
[390] CARB SRIA, Table 19, p.53; CARB, ISOR Appendix G: ACC II ZEV Technology Assessment, EPA-HQ-OAR-2023-0292-0012, p.50.
[391] CARB SRIA, p.51.
[392] This undermines the factual premise of the argument posed by the commenter regarding the first prong that higher battery costs should have been used and that the resulting higher ZEV prices would reduce emissions benefits due to fleet turnover effects and render the CARB standards less protective than the EPA standards. See AFPM, Attachment B, pp.2-3, 11. This also undermines commenter's argument regarding the second prong that California cannot have a need for the ZEV standards to meet compelling and extraordinary conditions. EPA also notes that the commenter has not provided evidence relating a possible fleet turnover effect to a reduction in the emission benefit of the ZEV program.

sources of uncertainty, and it is well understood among analysts that fluctuations in mineral prices could affect future battery prices. Indeed, CARB and the sources it relied upon in calculating battery prices specifically considered this source of uncertainty. Beyond mentioning this potential uncertainty, commenters did not provide quantitative evidence or analysis. Regarding comments concerned with the effect of fluctuating mineral prices or future availability of critical minerals on the cost estimates used by CARB, commenters did not provide quantitative evidence or analysis that would show either the degree to which commenters believe critical minerals would become more unavailable as a result of the ACC II regulations, or the effect that commenters believe such potential reduced availability would have on ZEV costs, such that potential effects would render CARB's cost estimate invalid or unreasonable. In light of CARB's detailed quantitative analysis, these generic unsubstantiated comments fail to meet the opponents' burden of proof.

Several commenters stated views supportive of CARB related to ZEV cost or suggested that CARB's ZEV costs were overly conservative, that is, too high. One of these commenters specifically supported CARB's battery cost projections, and presented further data and evidence to support the commenter's belief that CARB's estimates for non-battery powertrain manufacturing cost, assembly cost, and incremental BEV costs could be further reduced.[393] This commenter also stated that CARB underestimated increases in ICE vehicle cost over time and the savings from ICE equipment removal, and underestimated improvements in BEV efficiency, any of which would have resulted in lower cost estimates. Another commenter stated that the costs of compliance indicated by CARB are reasonable, in part because they are "in line with or

[393] International Council on Clean Transportation (ICCT), EPA-HQ-OAR-2023-0292-0169.

lower than costs that EPA and CARB have deemed reasonable for light-duty vehicle emissions standards in prior model years."[394] CARB stated that the industry "continues to expand and innovate in ways that will further reduce ZEV costs and increase options for consumers," and further pointed out recent declines in lithium-ion battery prices that reverse the increases seen in 2022, and continued growth in the supply chain and in raw material sources.[395]

These comments are supportive of CARB's request. In response to the comments suggesting that the CARB cost analysis is overly conservative, that is, that the costs could reasonably have been estimated to be lower, EPA notes that the use of lower cost estimates would have served to reduce the cost of the program as estimated by CARB and would only further support CARB's conclusion that the cost of the program is consistent with CAA section 202(a).

On June 7, 2024, California submitted Supplemental Comments that, among other things, responded to comments EPA received advocating for denial of the waiver. Relevant to costs, California's Supplemental Comment states:

> California determined that the costs for manufacturers to develop and apply the technology needed to comply with the state program, including ACC II, are "reasonable and can be accommodated in the time provided." [Citing Waiver Request Support Document Submitted by the California Air Resources Board, California Air Resources Board (May 22, 2023) (EPA-HQ-OAR-2023-0292-0034), p.56; Comment submitted by California Office of the Attorney General et al., *supra* note 2, pp.26–27]. Commenters do not provide evidence that compliance costs will be excessive and thus undermine feasibility. Instead, commenters mischaracterize California's economic analyses.

California's Supplemental Comment also addressed comments and issues that EPA finds outside the scope of the third prong, such as electric grid infrastructure, utility bill prices, and CARB's estimates that the total costs of ownership will decrease. These issues are discussed in the SRTC.

[394] States and Cities, p.26.
[395] CARB, EPA-HQ-OAR-2023-0292-0046, p.1.

CARB notes that Commenters' generalized, unsubstantiated challenges to CARB's cost analyses do not satisfy their burden of proof and in fact do not address the statutory criteria for a waiver at all.[396]

EPA finds that CARB's responses are reasonable. Commenters have not shown specifically how CARB's extensive consideration of costs was inappropriate or unreasonable. In its waiver request, CARB included reasonable consideration of the cost components cited by commenters, including vehicle costs and specifically battery costs (as well as other non-vehicle costs which we address further in the EPA SRTC). EPA, in developing the recently finalized LMDV Multipollutant Rule and other recent rulemakings, is aware that uncertainty exists with respect to the forecasting of any such future costs and is familiar with the general range of estimates for such costs. While some commenters assert that these costs will be higher than assumed by CARB, or that CARB omitted some aspects of cost, these commenters have not provided persuasive evidence that the costs estimated by CARB have not been reasonably accounted for, nor that the difference between CARB's estimated costs and the costs that commenters think would be more appropriate would fall outside a reasonable range of uncertainty. Commenters have also not established that any difference in estimated cost that might result from commenter's various perspectives on these costs would render CARB's cost estimates invalid or otherwise render the program inconsistent with CAA section 202(a). In combination with the supportive comments cited above, the CARB Supplemental Comments response provides additional support for the consideration of cost that was provided as part of the Waiver Request Support Document. EPA notes that CARB, in adopting the ACC II regulations,

[396] Supplemental Comments, pp.16-17.

performed a comprehensive feasibility analysis and determined that the technology exists for manufacturers to comply with the program and that the costs to manufacturers to develop and apply the technology would be reasonable in the lead time provided. CARB's analysis included an extensive analysis of technology costs and analysis of the impacts of the program on the primary areas cited by commenters, including areas (such as benefit-cost analysis) that are not required for EPA to evaluate the program under the three prongs. EPA finds that CARB has reasonably identified technologies and vehicle applications that are available in the near term as well as reasonable evidence that the ability for manufacturers to produce ZEVs under the phase-in schedule of ACC II regulations will be achievable. In addition, EPA notes that CARB's waiver request included their state rulemaking records for LEV IV and ZEV within the ACC II regulations, including CARB's detailed responses to any issues raised regarding technological feasibility, lead time, and cost. CARB also submitted supplemental comments to the docket for this waiver request responding to many of the comments received. Together these materials provide extensive information regarding CARB's assessment of not only vehicle technology costs, but also many other topics such as potential impacts on the grid, utility bill prices, and similar issues related to the ACC II regulations as a policy choice.[397]

With respect to vehicle costs, CARB analyzed compliance costs associated with the ACC II regulations, including the costs for the ZEV requirements.[398] One aspect of this cost analysis was an estimate of the per-vehicle incremental costs of the ACC II regulations, which for light-duty vehicles CARB expects to be "from $440 in the 2026 model year to as high as $1,181 in

[397] *See*, for example, CARB Supplemental Comments, p.17, and the CARB FSOR, ISOR, Standardized Regulatory Impact Assessment (SRIA), and attachments.
[398] Waiver Request Support Document, p.55.

[MY] 2031, then decline to an estimated $1,119 in the 2035 model year."[399] These estimates are drawn from the cost analysis work in the materials CARB prepared to support their rulemaking process, in particular the updated values in the FSOR.[400] For MDVs the average compliance cost for the ACC II regulations was estimated to start at $660 per vehicle in MY 2026 and drop to $465 per vehicle in MY 2035.[401] We find these estimated incremental vehicle costs are less than 5% of the average transaction price of a new vehicle.[402] This is a relatively small percentage that is not excessive and that falls well under the doubling or tripling in price described in the *MEMA I* decision as a basis for finding excessive costs.

It is also informative to compare the ACC II program relative to prior CARB and Federal programs. While each program involves different scopes and methodologies,[403] the per-vehicle costs offer a metric for comparing the order of magnitude of costs involved. In EPA's grant of the ACC I waiver, the agency observed that CARB had estimated an average cost of $1,840 for the combined ZEV and GHG standards in ACC I for the 2025 model year, when ACC I is fully phased in.[404] The ACC II regulation costs are thus comparable to or lesser than the costs CARB estimated for its earlier ACC I regulations.

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[399] *Id.*, p.56. Estimates are in 2021 dollars.
[400] CARB SRIA, EPA-HQ-OAR-2023-0292-0021, March 29, 2022, pp.49–64 and pp.65–67, respectively; ISOR, EPA-HQ-OAR-2023-0292-0009, Apr. 12, 2022, pp.155–168; ISOR Appendix G; FSOR Appendix F: Updated Costs and Benefits Analysis, EPA-HQ-OAR-2023-0292-0019, Aug. 25, 2022, pp.14–16. Note that the analysis in the FSOR supersedes that in the ISOR.
[401] SRIA, pp.79–84. Estimates are in 2021 dollars.
[402] This finding is based on the average transaction price of a light-duty vehicle in October 2024 of approximately $48,600 (https://www.kbb.com/car-advice/when-will-car-prices-drop/, accessed on December 5, 2024) and projected average costs for a medium-duty vehicle of $72,500 (in 2022 dollars) in MY 2032 (see 89 FR 28090, footnote 1331). Note that new vehicle prices have been increasing over time due to factors not associated with emission standards (see EPA LMDV Regulatory Impact Analysis, EPA-420-R-24-004, Chapter 4.2). If the average price of a MY 2035 vehicle is higher than our estimate shown here, the estimated percentage increase in cost under the CARB ACC II program could well be even smaller than 5 percent of the cost of a new MY 2035 vehicle.
[403] For example, methodological differences between the EPA analysis for the LMDV rule and the CARB analysis for the ACC II rule include differences in dollar years and assumptions about the baseline and other factors.
[404] 78 Fed. Reg. at 2138.

More recently, in the LMDV Multipollutant rule, EPA estimated costs of $2,074 per light-duty vehicle (2022$) in the final year of the phase-in of the Federal program (MY 2032).[405] This cost was smaller than the analogous cost metric for the 2012 light-duty GHG rule ($2,429 in 2022$), and greater than but on a similar scale as that for the 2010 rule ($1,302 in 2022$) and the 2021 rule ($1,153 in 2022$). California's cost projections for the ACC II regulation are significantly lower than the costs of the LMDV Multipollutant rule and fall well within the range of the costs of the last decade of Federal regulation.

Based on the foregoing analysis, we find the costs of compliance with the ACC II regulations are not excessive and do not otherwise create undue economic disruption for regulated manufacturers. Such costs are well within the boundaries of the guidance provided in *MEMA I* that the cost of compliance must reach a "very high" level before the EPA can deny a waiver.[406]

Our conclusions regarding costs are the same when we consider California's program as a whole. That is, the ACC II regulations impose costs on light- and medium-duty manufacturers, and those costs are not excessive, even when considering the other obligations already placed by CARB on such manufacturers. No commenter alleged that the interaction of ACC II and prior programs imposed excessive costs; further, the ACC II regulations do not impose additional costs on manufacturers in other sectors, such as heavy-duty manufacturers.

d. Vehicle Safety

[405] *See* LMDV Multipollutant Rule at 89 FR 28089–28090; *Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles: Regulatory Impact Analysis*, EPA Report EPA-420-R-24-004, Mar. 2024, pp.12-24–12-26; LMDV Multipollutant Rule RTC, p.305 Table 2.
[406] *MEMA I* at 1118.

EPA received a few comments related to concerns about vehicle safety issues under the ZEV program. One commenter claimed that CARB's waiver request is arbitrary and capricious because it does not address safety in any manner.[407] Two commenters raised concerns about the safety risks that heavier EVs pose when they collide with lighter vehicles, citing a statement from the National Transportation Safety Board (NTSB).[408] One of these commenters also alleged that higher EV weight will cause collapses of parking garages and guardrails.[409] Another commenter raised a concern about electric vehicle battery fires.[410]

EPA has evaluated the comments related to vehicle safety under the ZEV program and concludes that CARB's ACC II regulations do not pose an unreasonable risk to safety.

Regarding the comment that CARB did not address safety in its waiver request, we note there is no requirement for CARB to affirmatively address safety in its formal request. Nevertheless, the CARB rulemaking record shows that CARB considered safety concerns regarding the ZEV program. For example, CARB considered vehicle operational safety, battery fire safety, hydrogen fueling safety, and other safety issues in the ACC II Final Environmental Analysis.[411]

On the issue of the heavier weight of light-duty EVs, we do not find that the commenters have met their burden of proof to show that the heavier weight of light-duty EVs will cause unreasonable safety risks. With respect to comments concerned about damage to parking garages and guardrails, the commenter did not provide empirical data to support these claims. While

[407] AFPM, p.14.
[408] AFPM, p.10-11; Transfer Flow, Inc., EPA-HQ-OAR-2023-0292-0223, p.10.
[409] Transfer Flow, Inc., p.10.
[410] David Karmol, EPA-HQ-OAR-2023-0292-0487, p.3.
[411] CARB, ACC II ISOR Appendix E: Final Environmental Analysis for the Proposed Advanced Clean Cars II Program, August 24, 2022, EPA-HQ-OAR-2023-0292-0540 Attachment 9, pp.53–54, 110, 134–135, 143, 162.

current battery technology often leads EVs to be heavier than similarly sized ICE vehicles, auto manufacturers continue to have incentive to reduce the weight of EVs through improved battery technology, more efficient powertrains, improved packaging, and mass reduction elsewhere in the vehicle in order to provide customers with the desired range at a reduced cost. Manufacturers already are taking such steps to optimize their EVs, and we expect that this practice will continue as EV technology continues to advance.

Regarding the comments that cited a past statement by the NTSB, EPA carefully reviewed the statement[412] which the NTSB website identifies as an advocacy activity by Chair Jennifer Homendy. Notably, the statement lacks any technical findings regarding BEV safety. In addition, commenters selectively omit the remainder of the statement, which says "We do have a climate crisis that needs to be addressed. The U.S. transportation sector accounts for the largest portion of U.S. greenhouse gas emissions, and I firmly believe it is a human right to breathe clean air. But we have to be careful that we aren't also creating unintended consequences: more death on our roads. Safety, especially when it comes to new transportation policies and new technologies, cannot be overlooked. Ever." We agree with Chair Homendy that safety risks should not be overlooked. EPA recently conducted a thorough analysis of safety associated with the federal GHG standards for MY 2027-2032, which included the increased vehicle weight of plug-in electric vehicles (BEVs and PHEVs).[413] We found that plug-in electric vehicles are as

[412] https://www.ntsb.gov/Advocacy/Activities/Pages/Homendy-20230111.aspx, accessed on December 5,2024.
[413] 89 FR 28137–28138 (April 18, 2024).

safe as ICE vehicles and that there are no changes to the vehicles themselves nor the combined effects on future fleet composition that will have a statistically significant impact on safety.[414]

Regarding the concern that EVs have an increased safety risk from battery fires, available data does not indicate that the safety risk, in terms of the rate at which harm occurs, is higher than for other non-EV vehicles. For example, a study based on data available from NTSB indicates that electric vehicle fires (both in terms of total fires and fires per 100,000 vehicle sales) are far lower than fires from either gasoline or hybrid vehicles.[415] Currently, Federal safety standards require electric shock protection for electric powered vehicles. NHTSA is in the process of finalizing a proposed rulemaking which requires additional safety requirements to mitigate fire risk during normal vehicle operations, charging, and post-crash.[416] Furthermore, NHTSA has launched a Battery Safety Initiative to coordinate data collection activities, research, enforcement, and safety standards to address potential safety risks relating to electric vehicle batteries.[417] Altogether, we conclude that electric vehicles can today be designed, produced, and operated with minimal fire risk, and that the ongoing research and regulatory initiatives will only serve to further reduce any potential safety risk due to battery fires.

EPA has fully assessed the comments related to vehicle safety and concludes that the ACC II regulations would not create an unreasonable risk to safety. Comments asserting otherwise are based on arguments that lack credible empirical support. In addition, no

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[414] Under the Federal GHG standards, EPA's modeling of a central case pathway projected that manufacturers would choose to produce 69 percent BEVs and PHEVs by MY 2032 (89 FR 27856, April 18, 2024), compared to the CARB standard of 82 percent new vehicle ZEV sales in MY 2032. While the EPA BEV+PHEV projections are somewhat less than CARB's ZEV projections, for the purposes of the safety assessment, which is based on the proportion of vehicles in the entire fleet (as opposed to only new motor vehicles), these levels are comparable.

[415] https://www.autoinsuranceez.com/gas-vs-electric-car-fires/. AutoinsuranceEZ: Gas vs. Electric Car Fires [2024 Findings], accessed August 13, 2024.

[416] https://www.reginfo.gov/public/do/eAgendaViewRule?pubId=202404&RIN=2127-AM43 (accessed on December 5, 2024)

[417] https://www.nhtsa.gov/battery-safety-initiative (accessed on December 5, 2024)

commenters claimed that the interaction of ACC II with any other aspects of California's motor vehicle emissions program would create safety risks. We thus conclude that safety concerns are not a basis for concluding that California's standards, including the ACC II regulations, are inconsistent with CAA section 202(a).

5. EPA Finds California's Standards to Be Consistent with Section 202(a)

After a review of the record, information, and comments received in this proceeding, EPA has determined that the opponents of the waiver request for CARB's ACC II regulations have not demonstrated that California's motor vehicle standards, including the ACC II regulations, are inconsistent with CAA section 202(a).

EPA finds that CARB performed a reasonable analysis of the factors pertinent to approval of the waiver under the third prong and reached reasonable conclusions regarding consistency of the program with CAA section 202(a), as documented in CARB's Waiver Request Support document and additional documents cited in CARB's request, such as CARB's ISOR, FSOR, and response to comments received by CARB on the ACC II proposal at the state level. CARB also provided extensive supplemental comments responding to comments EPA received on the waiver application that are largely consistent with EPA's evaluation of the comments. We presented our analysis of comments related to technical feasibility, costs and lead time in Section III.C.4 above.

a. LEV IV requirements are consistent with section 202(a)

Comments received on the LEV IV requirements were summarized in Section III.C.4.a. That section also reviewed CARB's analysis of the consistency of the LEV IV requirements with CAA section 202(a). No comments opposing the LEV IV standards were submitted, while supportive commenters broadly indicated that the necessary technologies for LEV IV already

exist at reasonable cost.[418] CARB also addressed the technological feasibility of LEV IV in their FSOR and their waiver application. Based on consideration of this evidence, EPA considers LEV IV to be consistent with CAA section 202(a).

b. ZEV standards are consistent with section 202(a)

Regarding technological feasibility and lead time of the ZEV program, EPA finds that CARB's assessment of technology, lead time and cost was based on reasonable assumptions. As described above. EPA reviewed public comments on ZEV technology feasibility and lead time and responded to these comments in Section III.C.4.b. Regarding costs of the ZEV program, EPA finds that CARB included reasonable consideration of cost. EPA reviewed comments on ZEV technology cost and responded to those comments in Section III.C.4.c.[419]

D. Section 209(b)(1)(C) Conclusion

EPA has evaluated the ACC II standards to determine whether the opponents of the waiver have met their burden of proof as a factual matter to demonstrate that California's standards are not technologically feasible, giving consideration to lead time and cost. CARB has demonstrated that technologies exist today to meet the LEV IV and ZEV standards and that manufacturers can increase production of vehicles with such technologies to meet the standards within the lead time provided. CARB has also assessed the costs of the ACC II regulations. EPA finds that CARB's assessments are reasonable, including that technology exists to meet the ACC II standards, the resulting costs are not excessive, and regulated manufacturers will not incur undue economic disruption or that basis market demand will not otherwise be met. Based on the record, EPA cannot find that the opponents of the ACC II regulations waiver request have met

[418] Environmental and Public Health Organizations, p.12; States and Cities, p.11
[419] CARB, EPA-HQ-OAR-2023-0292-0046; States and Cities; ICCT; ZETA, EPA-HQ-OAR-2023-0292-0199; ACRA; and Valero.

their requisite burden of proof to demonstrate that such requirements are inconsistent with section 202(a). Thus, EPA cannot deny CARB's ACC II regulations waiver request on this basis.

IV. Other Issues

A. Major Questions Doctrine

In evaluating the State's request for waiver of the ACC II regulations, EPA is applying the same statutory criteria it has in dozens of waiver actions over the course of several decades to evaluate whether the State's vehicle emissions standards will be, in the aggregate, as protective as the Federal standards, whether the State continues to need its standards to meet extraordinary and compelling conditions, and whether the State's standards are consistent with CAA section 202(a). Actions taken under CAA section 209 have consistently been characterized by EPA and the courts not as an exercise of EPA's own regulatory authority, but rather as an adjudication guided by specific statutory criteria. The consistent application of these criteria in an adjudicatory setting, including for the past three decades to the ZEV component of the State's vehicle emissions program, stands in stark contrast to the type of transformative exercise of federal agency authority that is the concern of the major questions doctrine.

EPA received several comments claiming that the major questions doctrine constrains EPA's or the State's authority. We have addressed some of these comments in earlier sections, including comments that claimed California could not demonstrate a need for its ZEV standards under the second waiver prong due to the major questions doctrine (addressed in Section III.B), or that the ZEV standards cannot be consistent with CAA section 202(a) under the third waiver prong because section 202(a)(1) does not provide clear authorization to set ZEV standards (addressed in Section III.C.),

In this section, we explain why the major questions doctrine is not implicated in this waiver decision. First, we explain why a waiver adjudication is a fundamentally different type of action than the exercise of regulatory authority that is the focus of the major questions doctrine. Second, we show that CAA section 209(b) provides clear direction to EPA to grant a waiver request unless certain conditions are met. We then explain how granting a waiver for the ZEV regulation within the ACC II program, rather than transformative, is a continuation of longstanding interpretations EPA has applied to CAA section 209. Finally, we address the contention that EPA's waiver of CAA section 209 preemption of the ACC II ZEV regulation will create vast economic and political consequences.[420]

1. The major questions doctrine does not apply to EPA's grant of a waiver under CAA section 209

The major questions doctrine is concerned with "agencies asserting highly consequential power beyond what Congress could reasonably be understood to have granted."[421] In CAA section 209, Congress required that federal preemption be waived for the state unless the EPA determines that criteria specified in the statute are met. In this context, EPA does not exercise its own regulatory authority but rather sits in an adjudicatory role evaluating state standards (in this case California standards that were adopted under its own state police power authority) against these criteria; EPA's evaluation and final decision regarding a request for waiver of preemption under CAA section 209 is not predicated on any federal rulemaking authority or rulemaking

[420] EPA received comment from TPPF, Illinois Corn Growers, Sinclair, ACRA, Institute for Energy Research, AFPM, Marathon Petroleum, Center for Environmental Accountability, and API (among others) that asserted the EPA is precluded from issuing the ACC II waiver for the ZEV regulations due to the major questions doctrine. Commenters did not assert that a major question was raised for the LEV IV portion of ACC II. Therefore, this response addresses major questions doctrine only for the ZEV standards.
[421] *West Virginia v. EPA*, 142 S. Ct. 2587, 2609 (2022).

action associated with mobile sources. This action does not represent a "transformative expansion in [the agency's] regulatory authority,"[422] because EPA is not exercising any regulatory authority to begin with. It follows that the grant of a CAA section 209 preemption waiver does not raise the concerns regarding separation of powers amongst branches of the federal government that motivate the major questions doctrine. There can be no concern in the section 209 waiver context that EPA may make "major policy decisions" that should be reserved to Congress.[423] As we explain in Section II, the language, structure, legislative history, and longstanding implementation of CAA section 209 all confirm that this provision serves the purpose of allowing the State to innovate and pursue its own policy priorities, provided the waiver criteria are satisfied. Rather than involving "consequential tradeoffs . . . that Congress likely would have intended for itself,"[424] CAA section 209 represents Congress' decision to allow consequential policy tradeoffs regarding the regulation of new motor vehicles to be made by the State limited only by the Congressionally specified criteria in section 209(b)(1).

California's authority to implement and enforce the ACC II regulations is not the result of a delegation by Congress or EPA. [425] The State possesses sovereign authority to adopt its own legal code and to exercise its police powers to regulate air pollution from mobile sources.[426] EPA's waiver action does not add to or subtract from that sovereign authority, but merely adjudicates whether California's regulatory choices satisfy the statutory criteria for a waiver of

[422] *Id.* at 2610.
[423] *Id.* at 2609.
[424] *Id.* at 2613.
[425] *See, e.g.*, TPPF, p.3.
[426] *Central Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F.Supp.2d 1151, 1174 ("The waiver provision of the Clean Air Act recognizes that California has exercised its police power to regulate pollution emissions from motor vehicles since before March 30, 1966; a date that predates both the Clean Air Act and EPCA."). *See also In re Volkswagen "Clean Diesel" Mktg., Sales Pracs., & Prod. Liab. Litig*., 959 F.3d 1201, 1206 (9th Cir. 2020) ("the regulation of air pollution for health and welfare purposes falls within the exercise of even the most traditional concept of what is compendiously known as the police power").

preemption under CAA section 209(b). Relevant case law, including *West Virginia*, is devoid of any suggestion that the major questions doctrine limits a State's sovereign powers. It follows that the doctrine does not apply when the Federal government adjudicates the State's request to implement its own laws as not being preempted by Federal statute.

The principles underlying the major questions doctrine undermine rather than support these commenters' arguments. The doctrine does not support depriving the State of authority to enforce its own motor vehicle program. There is no authority for the proposition that the major questions doctrine supports aggrandizing Federal power at the expense of a state power, particularly as the doctrine can help "preserve room for lawmaking by governments more local and more accountable than a distant federal authority, and in this way allow States to serve as laboratories for novel social and economic experiments."[427] Indeed, while the question of the balance of Federal-State power often arises in major questions cases, in such cases where a court has applied the doctrine, it has been to restrain Federal authority in favor of state authority, and never the other way around.

2. The Clean Air Act provides clear Congressional direction pursuant to which EPA must waive preemption for the ACC II ZEV standards

The Supreme Court has characterized the major questions doctrine as applying to instances where a regulatory agency has relied upon "oblique or elliptical language" to accomplish a "radical or fundamental change to a statutory scheme."[428] By contrast, even where a major question exists, an agency may lawfully proceed if it identifies clear congressional authorization for the power it claims.

[427] *W. Virginia v. Env't Prot. Agency*, 597 U.S. 697, 739 (2022) (Gorsuch, J., concurring) (cleaned up).
[428] *Id.*, at 2609 (cleaned up).

Comments raising the prospect of a major question generally focus not on the language of CAA section 209, but rather on CAA section 202(a). These comments contend that because section 202(a) does not provide clear congressional authorization to EPA to require ZEVs, and because section 209(b)(1)(C) requires that State standards be "consistent" with section 202(a), a major question is therefore presented by the request for a waiver for the state's ZEV standards. Only through section 209(b)(1)(C)'s reference to section 202(a) do commenters identify what they claim to be "ambiguous statutory text"[429] to which the major questions doctrine might apply.

In Section III.C above, we respond to commenters' two-part argument that: first, the "consistent with" language of CAA section 209(b)(1)(C) requires that CARB's standards must comply perfectly with all aspects of CAA section 202(a) and entails that the state may only adopt a standard applicable to motor vehicles that EPA itself could have adopted; and second, EPA lacks authority under section 202(a) to promulgate ZEV standards. For purposes of the major questions doctrine, we note here that both section 209(b) and section 202(a)(1) provide clarity sufficient to avoid a major question.

Some commenters also invoked the major questions doctrine in the context of the second prong. As we explain in section III.B, we believe that the second prong provides clear Congressional direction to EPA in evaluating whether the State needs its standards to meet compelling and extraordinary conditions.

3. Waiving preemption for the ACC II ZEV regulations continues a long history of waivers for the State's ZEV program

[429] *Id.* at 2609.

In *West Virginia* the Court found that EPA had "claimed to discover in a long extant statute an unheralded power representing a transformative expansion of its regulatory authority."[430] The grant of a waiver under CAA section 209(b) for the ACC II ZEV standards does not depend upon a novel interpretation or otherwise amount to the exercise of unheralded power. To the contrary, and as set forth in Section III.C above, waiver of preemption for the ACC II ZEV standards is a further step in a series of actions that began in 1993 with EPA's waiver for the first California ZEV standards. This longstanding approach, which expressly takes into account technical feasibility considering costs, has numerous times resulted in waivers for California's ZEV standards. While a waiver for the ACC II ZEV standards allows the State to strengthen its reliance on zero emission technology to achieve a broad range of emission reduction goals, [431] this result is reached through the same statutory interpretation as has been implemented for over thirty years with regard to CARB's ZEV program.[432] That is, while the percentage sales requirement under California's ZEV program has increased over time and associated emission reductions have taken place, such differences or amendments to a program to address a continuing air quality problem reflect the typical strengthening of environmental standards over time in response to advances in vehicle technology and the State's policy choice to obtain greater environmental benefits, further improving upon the state's public health and welfare. By contrast, were EPA to now reject our longstanding interpretation and adopt the commenters' novel view of the Act—to deny the waiver, limit the State's police powers, and

[430] *Id.*, at 2610 (cleaned up).
[431] Waiver Request Support Document, p.3.
[432] As we explain in Section II.B, EPA did on two brief occasions change an aspect of our legal interpretation relating to the second waiver prong. However, our interpretation of the third prong, including the aspects pertinent to the major questions argument, raised by commenters has remained uniform.

instead impose the Federal standards in California—that decision would improperly prioritize Federal power.

4. Economic and political impacts of the ZEV regulations

The Supreme Court has explained that one of the factors indicative of a major question is whether agency action exerts "extravagant power over the national economy."[433] In *West Virginia*, the Court found such a circumstance with regard to an EPA rule that the Court predicted would "restructure the American energy market."[434] Some commenters claimed that a waiver for ACC II presents a major question due to what they claimed are vast economic and political impacts. These comments exaggerate the scope and effect of ACC II as a factual matter.

Many commenters advancing the argument that the ACC II sales requirement will cause vast economic impacts characterize the State's regulation as a "ban" on ICE vehicles. In response, we begin by noting that the ACC II ZEV regulation does not at any point "ban" ICE vehicles even in the State. From its initial year and through the phase-in to 100% ZEV sales in MY 2035 and beyond, manufacturers are allowed to count up to 20% plug in hybrid electric vehicles toward compliance. Notwithstanding the "ZEV" moniker which implies otherwise, the ZEV regulation allows for the sale of ICE vehicles in the State. Moreover, the ZEV regulation will further support the market for ZEVs within a single state that already features the largest percentage of ZEV sales in the nation. This is markedly different than the widespread impacts on the national economy that have been found by the courts to signal a major question. Commenters who asserted that a waiver for the ACC II ZEV regulation raises a major question appeared to

[433] *West Virginia*, at 2609.
[434] *West Virginia*, at 2610.

assume that the State's ZEV requirements are destined to apply to sales in every state. Yet these commenters offer no support for this assumption.

It is true that a waiver for California's ACC II ZEV regulation creates the opportunity for some states, at their option and exercising their own state police power, to adopt California's ZEV regulation pursuant to CAA section 177.[435] Those impacts, however, are the consequence of those States independently choosing to adopt the ACC II program pursuant to their own State sovereign authority. The state's exercise of its own authority must be consistent with section 177. While some commenters seek to attribute the broader impacts of those section 177 state decisions to EPA's waiver action, we disagree. This waiver proceeding only waives preemption for California's ACC II program. Section 177 itself contemplates that certain other states may adopt California's program without the need for any further EPA waiver action or other approval specific to the section 177 states, and that is how EPA has always administered the statute. This issue further highlights the fundamental incongruence of applying the major questions doctrine to this waiver proceeding: it makes no sense that the major questions doctrine limits the independent and sovereign decisions of the several states to adopt California's program into their state code.[436]

Focusing on the economic impacts within California, EPA finds that CARB's regulation is not—as some commenters claim—expected to radically transform the automobile sector or *a fortiori* the entire California or national economy. Rather, CARB's rulemaking record explains

[435] To date eleven states have adopted CARB's ACC II regulation (CO, CT, DE, MD, MA, NJ, NM, NY, OR, RI, and VT) and Washington, D.C.

[436] States that have decided to adopt California's program may also choose at any time to return to the federal standards. This could happen for many reasons, including a change in political leadership, legal challenges under state law, or changes in environmental or economic conditions. The key point is that Congress has given EPA no role in decisions made by 177 states over which set of standards they intend to implement.

how the ZEV standard supports the existing market's momentum toward ZEVs occupying an increasingly large share of the new vehicle market. Among other evidence, CARB states that "data from the third quarter of 2023 show that this consumer demand continues to grow, with California ZEV and PHEV sales reaching 26.7% of total vehicle sales."[437] CARB uses statistics regarding ZEV sales in California to demonstrate that consumer demand for ZEVs continues to trend upward, and that expected decreases in battery costs and increased availability of infrastructure will strengthen that trend regardless of the ZEV standards. CARB cites these factors in support of its prediction that "ZEV standards can be met in the time provided."[438] As EPA explained in its LMDV Multipollutant Rule, we agree that the market momentum toward ZEVs is very strong given evolving advancements in ZEV technology and manufacturing, rapid reductions in the market cost of ZEVs and their parts, as well as the unprecedented support provided by the BIL and the IRA. Moreover, even beyond the funding provided by the Federal BIL and IRA, California has numerous supportive funding and other policies to support ZEV deployment, creating an extremely favorable environment for ZEVs—completely separate from the regulatory obligations under ACC II.[439] Thus, CARB's ACC II regulation builds on the existing market momentum for ZEV technologies and further supports the automobile manufacturing industry's ability to produce clean vehicles.

In assessing the regulation's impacts, EPA also considered the relative costs of the ACC II regulation compared to earlier rules. As explained in Section III.C, EPA considered the costs of the ACC II regulation to regulated manufacturers relative to both its ACC I predecessor and Federal emission standards for the light and medium duty sector. The estimated costs of ACC II

[437] CARB, EPA-HQ-OAR-2023-0292-0046, p.1.
[438] Waiver Request Support Document, pp.49-50.
[439] Waiver Request Support Document, pp.17–18, 54.

fall well within the range, and in many cases are significantly less, than the estimated costs of these other programs.

EPA also considered other indicators of vast economic and political economic impacts identified by prior court cases and did not identify any such indicators. For example, we did not find that California's program regulates vastly more numerous entities than prior State regulations; by contrast, the burden of complying with the LEV IV and ZEV programs continues to remain on automobile manufacturers, a relative handful of large sources capable of shouldering the burden of regulation. Nor did we find that the ACC II program results in costs that would significantly disrupt consumers. As CARB noted, the expected costs of the ACC II regulations "are well under 5% of the average price of a new vehicle and provide net savings to consumers."[440] Nor did we identify persuasive evidence that CARB's regulation would require, legally or practically, any vehicle manufacturers to shut down or reduce their production or create excessive delays in manufacturers' ability to continue to produce vehicles.[441]

5. Additional Factors Counsel Against Application of the Major Questions Doctrine

a. The federalism canon does not preclude a waiver for the California ZEV regulation

One commenter asserted the federalism canon reinforced their position that the CAA does not authorize a waiver for what they term a ZEV "mandate." This commenter cites the Supreme Court opinion of *Gregory v. Ashcroft* for the proposition that Congress must be "unmistakably clear in the language of the statute" if it "intends to alter the usual constitutional balance between

[440] Waiver Request Support Document, p.56.
[441] We further describe the economic and other impacts of CARB's ACC II regulations in Section III and the SRTC.

the States and the Federal government."[442] This commenter claimed that California should not be able to "upend the nationwide transportation and fuel industries" through the ZEV regulations absent "unmistakably clear" authority from Congress.

Although the ZEV regulation will accelerate ZEV sales in California, such a result is consistent with the federal-state balance explicitly established in CAA section 209. The federalism canon serves to protect state sovereignty against Federal interference. To the extent the federalism canon yields any inference in the context of CAA section 209, it is in favor of allowing the State to exercise its traditional police powers to regulate emissions from mobile sources.[443] Commenters' assertion that the federalism canon serves to achieve the opposite result is not explained in any detail. We find commenters' argument to be counter-intuitive and unpersuasive.[444]

b. Congressional debate regarding electric vehicles does not suggest a major question

Some commenters assert that the ZEV regulation (and what some term a "ZEV mandate") is politically controversial, and that the degree of controversy suggests a major question. These commenters premise their argument on a presumed effect of national scale. To the extent commenters proffer evidence of political controversy, they do so relative only to the national policy debate over electric vehicles. The commenters do not explain why such national

[442] TPPF. EPA notes *Ohio v. EPA* at 295 ("Congress enacted Sections 209(a) and (b) to balance the fears of automobile manufacturers, California's need for bespoke regulation, and the federal interest in allowing California to test new emissions regulations. Section 209(a) addresses the fears of automakers and ensures national uniformity in automobile emissions standards by preempting state regulation. *See* 42 U.S.C. § 7543(a). Meanwhile, Section 209(b) grandfathers in California's regulatory program and allows it to continue innovating new solutions to automobile pollution. *See id*. § 7543(b); *see also Engine Mfrs*. *Ass'n*, 88 F.3d at 1080.").

[443] See, e.g., *Solid Waste Agency v. United States Army Corps of Eng'Rs*, 121 S. Ct. 675, 684 (2001) (federalism canon supported finding that migratory bird rule implementing the federal Clean Water Act would result in a "significant impingement of the States' traditional and primary power over land and water use").

[444] The same argument applies to States that choose to adopt ACC II under CAA section 177. Such a result is explicitly permitted under the statute, and moreover, is in favor of States further exercising their traditional police powers.

political debates are relevant to whether a single State, California, may adopt a ZEV regulation. case, EPA in its role as adjudicator of a CAA section 209 waiver request may not take political controversy into account.

To the extent commenters are concerned about the ZEV regulation circumventing political accountability, CARB is a state executive branch agency with a governing board that includes elected representatives of local governments within the State. The process by which CARB adopts standards entails a robust set of public comment procedures and an opportunity for judicial review at the state level, as would also likely be the case for any state adopting California's waived regulations pursuant to CAA section 177.[445]

The Supreme Court in *West Virginia* noted as relevant to its finding of a major question that Congress had repeatedly considered but declined to pass legislation similar to the regulation at issue in that case.[446] The *West Virginia* Court viewed persistent contentious debate in the legislative branch as casting further doubt on an executive branch agency taking initiative in the same policy area. One commenter attempts to draw a parallel between the situation in *West Virginia* and a waiver for the ZEV regulations based on recent debates in Congress regarding EV mandates.[447] This commenter notes that Congress has considered but not yet adopted legislation mandating electric vehicles. The commenter then attempts to draw a parallel with *West Virginia*

[445] Waiver Request Support Document, pp.8–9.
[446] *West Virginia* at 2614.
[447] In the LMDV Response to Comments, we explained that, at the federal level, the weight of statutory and legislative history strongly favors EPA's authority under section 202(a) to consider electrification technologies. Specifically, the litany of statutory provisions promoting electrified technologies is not outweighed by the few pieces of failed legislation cited by commenters on the LMDV Multipollutant Rule as suggestive of a political stalemate. *See* LMDV Response to Comments, p.327.

by asserting that the ACC II ZEV standard would aim for a result that Congress has considered and rejected.[448]

The premise of this argument mischaracterizes the effect of a CAA section 209(b) waiver. The question presented by this waiver request is whether California may require the sale of ZEVs for new motor vehicles sold in the State. There is no necessary consequence outside of California, and section 209(b) does not allow EPA to consider how a waiver of a standard for California may influence the policy judgment of legislatures in other states, or Congress. Commenters make no mention of political debate at the State level, but even if they did, the section 209(b) waiver criteria would not allow EPA to consider this. Just as the waiver criteria do not contemplate that EPA may second-guess the State's policy priorities, it is even more apparent that debate over those priorities is not a question, major or otherwise, for EPA's consideration.

B. Relationship of Section 209 and Section 177

Commenters disagreed over whether other states may adopt CARB's requirements before a waiver has been granted.[449] They also disagreed over the scope of that adoption, including whether states must also adopt ACC II's specific ZEV sales percentages for each model year.[450] One commenter expected that other states' adoption will lead to a patchwork of individual state regulatory programs, resulting in inefficiencies in the fuel and vehicle market that will increase costs for consumers.[451]

As explained throughout this notice, EPA's consideration of CARB's request is limited to the factors expressed in CAA section 209(b). Whether California's standards are feasible outside

[448] Sinclair, p.3.
[449] Ctr. for Env't Accountability, p.15; CCAE, p.8.
[450] NADA, pp.3–4.
[451] API, p.14.

of California is beyond the scope of EPA's review. Similarly, this action is not the proper venue for EPA to opine on the meaning of CAA section 177, including on questions raised by commenters such as when a state may adopt California's standards under section 177 or whether a state must adopt the same ZEV sales percentages as California. Congress left all questions of whether to adopt California standards, including determinations of feasibility, to eligible states.

Section 177 was added to the CAA to expand the availability of California's standards for adoption by other states, not to constrain California's authority.[452] At the same time this provision was added, Congress expanded CAA section 209(b) to include consideration of California's rules "in the aggregate," evidencing a desire to provide broad discretion to the state. Section 177 does not in turn create a patchwork of regulation; adopting states' standards must be identical to California's standards, resulting in only a "federal" car and a "California" car for purposes of compliance.[453] Moreover, section 177 describes itself as an exception to section 209 preemption, but neither the section 209 waiver process nor the text of section 177 itself allow EPA to evaluate any action taken under section 177. Section 177, which offers states flexibility to reduce criteria pollutant emissions from mobile sources for use in SIP planning, also does not modify or constrain the terms in section 209. Congress thus unquestionably appreciated the connection between the two sections: nonetheless, Congress required EPA to grant the waiver subject only to the statutory criteria in section 209(b). It is clear that consideration of adoption of California's standards by section 177 states is not relevant to the merits of whether EPA must grant California a waiver. Put differently, EPA is not permitted by statute to deny a section 209(b) waiver to

[452] *See* 78 FR at 2143.
[453] In fact, Congress explicitly prohibited the adoption of standards that would "create or have the effect of creating…a 'third vehicle.'" Section 177.

California based on the choices of other sovereign states to adopt or not California's motor vehicle program.

Further, CAA section 177 does not require states to seek EPA's approval to adopt California's standards.[454] In addition to Congress's limit of EPA's consideration of California's waiver request to section 209(b), this lack of a role in section 177 approval further supports this section being beyond the scope of this waiver. To the extent commenters believe a particular 177 state should not adopt or repeal its adoption of the ACC II standards, those comments may be better addressed to that state, as opposed to EPA.

One commenter asked EPA to consider feasibility of the ZEV sales requirement in section 177 states, including to consider grid reliability and charging infrastructure.[455] Again, because EPA cannot in adjudicating the waiver consider the feasibility of California's standards in section 177 states, it follows that EPA, in keeping with its statutory authority and longstanding practice, cannot consider further factors in such states such as grid reliability and charging infrastructure.[456] As in all aspects of the waiver proceeding, EPA's consideration is limited to the factors assigned to it in CAA section 209(b). The appropriateness of the standards in each adopting state is best considered by each state.

EPA also received comment suggesting that section 177 of the CAA does not envision states being able to adopt the California ZEV requirements because these states do not have the same "compelling and extraordinary" conditions as California.[457] But the conditions in other states have no bearing over whether the conditions in California remain "compelling and

[454] *See* 87 FR 14332, 14374 ("EPA plays no statutory approval role in connection with states' adoption of standards identical to those standards for which the Agency has granted a waiver to California.").
[455] Alliance for Automotive Innovation, p.4.
[456] *See, e.g.*, 78 FR at 2143.
[457] CEA, pp.36-39; AFPM, p.18.

extraordinary." Although EPA therefore considers this comment out of scope for the waiver proceeding, EPA notes that states that adopt CARB's standards do so through a need to address their own air quality challenges.[458] Other states' conditions do not affect whether pollutants "pose a special problem in California."[459]

Some commenters supported approving a waiver for ACC II to provide tangible benefits to states. They claimed that this approval will support states to address the climate crisis and harmful air pollution, environmental justice concerns, increase manufacturing and good-paying jobs, support implementation of the Paris climate agreement, and other benefits.[460] One commenter also stated that the section 177 flexibility is a cornerstone of SIP planning for states faced with meeting NAAQS.[461] However, another commenter questioned whether section 177 applies to GHG pollutants at all, and instead may only apply to criteria pollutants.[462] Yet another commenter stated that while EPA can approve the inclusion of California standards in future SIPs, it has no role in a state's choice to adopt those standards in the first place.[463]

EPA understands commenters' concerns for supporting states in meeting the needs of their citizens. EPA also recognizes some states' use of waived California standards that have been adopted by those states under section 177 in their SIP planning. However, as stated previously, EPA's consideration is limited to the factors set to it in CAA section 209(b). State regulations promulgated under section 177, which are promulgated by separate state agencies under their own authority, and which have not been submitted to EPA for waiver review, are not

[458] *See* 87 FR at 14342 (noting that "[a]ny state with qualifying SIP provisions" may utilize CARB's standards since "Section 177 permits other states addressing their own air pollution problem").
[459] 87 FR at 14362; 49 FR at 18891.
[460] U.S. Climate Alliance, pp.1–2.
[461] Earthjustice et al., p.2.
[462] Ctr. for Env't Accountability, p.15.
[463] States and Cities, pp.7-8.

a proper focus of our review of California's state regulations under section 209(b).[464] Those opposed to the regulations of section 177 States may seek recourse in those States' legislative, administrative, or judicial processes. EPA does not consider the choices of section 177 states in this waiver determination, and other states' adoption of these standards, regardless of whether the standards have been submitted as a SIP revision, plays no role in EPA's waiver proceeding.

C. Energy Policy and Conservation Act Preemption

Commenters claimed that California's authority to seek a waiver is preempted by the Energy Policy and Conservation Act (EPCA). They claimed that EPCA preempts any state regulation that is "related" to fuel economy.[465] Commenters also claimed that GHG emissions are directly proportional to the consumption of fossil fuels and that any regulation of such emissions is therefore "related" to the regulation of fuel economy.[466] In turn, one commenter claimed that California's ZEV regulation undermines NHTSA's technology-neutral average fuel economy determination, citing NHTSA's action in "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Part One: One National Program."[467] Commenters stated that ZEV percentages have a direct and substantial effect on manufacturers' CAFE compliance, citing *Metro. Taxicab Bd. of Trade v. City of New York*, 615 F.3d 152, 157 (2d Cir. 2010) (finding that New York's hybrid taxi mandate was preempted because EPCA displaces state regulations that "make fuel economy standards essential to the operation of those rules").

EPA's evaluation of a CAA section 209 waiver request is not affected by possible preemption under other Federal statutes such as EPCA. As discussed above and under

[464] 87 FR at 14375-14376.
[465] Ohio AG, p.11; Sen. Capito et al.; ACRA, p.19; Inst. for Energy Research et al., pp.2–3.
[466] AFPM, pp.6–7; Ctr. for Env't Accountability, EPA-HQ-OAR-2023-0292-0170, pp.42–44.
[467] 84 FR 51310, 51311 (Sept. 27, 2019) ("ZEV mandates are preempted by EPCA"). API, pp.11–13.

longstanding practice, EPA's waiver determination is instead governed by CAA section 209(b). The D.C. Circuit has held that EPA's inquiry under section 209(b) is "modest in scope."[468] That court further noted that "there is no such thing as a 'general duty' on an administrative agency to make decisions based on factors other than those Congress expressly or impliedly intended EPA to consider."[469] In the same decision it rejected an argument that EPA must consider a factor outside the 209(b) statutory criteria, concluding that doing so would restrict California's ability to "exercise broad discretion."[470] Consideration of EPCA preemption is not among the factors governing EPA's determination under 209(b).[471] Thus, EPA does not consider whether California's authority to set emissions standards is preempted by EPCA, whether emissions targeted by California are "related" to the regulation of fuel economy,[472] or whether such

[468] *MEMA I*, 627 F.2d at 1119.
[469] *Id.* at 1116 (acknowledging that "the Administrator must be sensitive to [CAA] section 207 concerns in approaching a waiver decision," but concluding that "he has no duty beyond that to consider claims of anti-competitiveness in a waiver proceeding").
[470] *MEMA II*, 142 F.3d at 464 (rejecting a claim that California's standards must comply with CAA section 202(m) because "it would appear virtually impossible for California to exercise broad discretion if it had to comply with every subsection of 202 that cross-referenced subsection (a)").
[471] EPA acknowledges that in the SAFE action taken in 2019, EPA took a position contrary to its longstanding (and present) position and withdrew the ACC I waiver issued in 2013, in part due to NHTSA's action pertaining to EPCA preemption within the same 2019 action. However, in 2022 EPA withdrew this position on EPCA preemption deeming that it had inappropriately considered preemption under EPCA in its 2019 waiver decision. 87 FR 14332,14369-70 (Mar. 14, 2022). EPA incorporates the reasoning from the 2022 action into this decision.
[472] EPA notes, moreover, that it is not clear that regulation of GHGs is related to the regulation of fuel economy. As made clear in the Department of Energy's recent revision of the petroleum equivalency factor applied to calculations of fuel economy, there are multiple factors considered in fuel economy, none of which are a measurement of the emission of GHGs. 89 FR 22041, 22043 (Mar. 29, 2024).

emissions regulation is "essential to the operation of those rules."[473] This waiver action is an improper forum for such an inquiry.[474]

In response to the commenters' citation to NHTSA's views on EPCA preemption in the SAFE I action,[475] EPA notes that NHTSA has since withdrawn its view.[476] NHTSA concluded that withdrawal of the SAFE I interpretation was appropriate in part because the previous interpretation's sweeping, categorical preemption prohibitions "impermissibly failed to account for legally relevant factors," such as attaining the NAAQS, that risked "prematurely overriding federalism interests in a categorical manner."[477] As a result, there is no longer any existing NHTSA regulation purporting to define the scope of EPCA preemption.

Commenters also pointed out that the Supreme Court has mandated that EPA and NHTSA administer their own obligations while avoiding inconsistency. EPA agrees that its obligation to protect the public's health and welfare is "wholly independent of DOT's mandate to promote energy efficiency."[478] Indeed, though EPCA precludes DOT and NHTSA from considering battery electric vehicles in exercising certain regulatory powers, the CAA contains no similar limitation; Congress knew how to limit EPA's authority but intentionally declined to do so. EPA's

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[473] *See Metro. Taxicab Bd. of Trade v. City of New York*, 615 F.3d 152, 157 (2d. Cir. 2010). EPA notes that the posture of this case is significantly different than that under consideration here. California's rules are subject to decades of waiver practice authorized by CAA section 209(b) which have never been found by any court to be preempted by EPCA. By contrast, New York City is not included as an entity eligible for this waiver. But more to the point, the court noted that the city's rule "include[d] every car approved for use under the now-repealed 25/30 MPG rule," showing that the rule at issue was based not on a measurement of emissions, but on direct reference to fuel economy. By contrast, the ACC II program does not directly regulate fuel economy, but instead directly regulates emissions of air pollutants.

[474] EPA notes that courts that have considered whether EPCA preempts greenhouse-gas emission standards have concluded that it does not. *See, e.g.*, *Cent. Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151, 1153–54 (E.D. Cal. 2007), as amended Mar. 25, 2008; *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*, 508 F. Supp. 2d 295, 346–47 (D. Vt. 2007).

[475] SAFE I, 84 FR at 51311.

[476] Corporate Average Fuel Economy Preemption, 86 FR 74236, 74238 (Dec. 29, 2021).

[477] *Id.* at 74238–39.

[478] *See Massachusetts v. EPA*, 549 U.S. 497, 532 (2007).

administration of the waiver program is likewise an independent obligation from DOT's mandates.

D. Equal Sovereignty Doctrine

Commenters claimed that approval of ACC II would violate equal sovereignty principles. As a "background principle," commenters characterized equal sovereignty as a "truism" implicit in the Constitution's structure, supported by historical practice, that limits the reach of the waiver mechanism to only those air quality conditions in California that are local and unique. Commenters stated that this principle requires parity of "political standing and sovereignty," such that special treatment allowing one state to set policy on the global problem of GHGs violates the principle.[479] Commenters pointed to the Supreme Court's holding in *Shelby County v. Holder* regarding regulations which impermissibly burdened certain states but not others.[480] They protested that California should not be the only state to decide policy on a global pollution problem, and that it would not be valid for other states to follow along with California at their discretion.[481] One commenter went beyond GHGs to claim that because many states struggle to attain the NAAQS, California does not have a unique position warranting special treatment even with respect to criteria pollution. Another commenter stated that "exceedingly clear [statutory] language" is required for an agency to "alter the usual constitutional balance between the States and the Federal government."[482]

[479] AFPM, pp.3–5; Sinclair, pp.4–5.
[480] Inst. for Energy Research, EPA-HQ-OAR-2023-0292-0225, p.2; *see Shelby County. v. Holder*, 570 U.S. 529 (2013).
[481] For further discussion of this issue see Section III.B.
[482] TPPF, p.3.

As the D.C. Circuit stated clearly, "[t]he waiver proceeding produces a forum ill-suited to the resolution of constitutional claims."[483] In the waiver context, EPA does not consider factors beyond those expressed in CAA section 209(b). Even if it were to consider constitutional questions, the resolution of such issues "is the most important of judicial functions, 'one that even the judiciary is reluctant to exercise.'"[484] EPA has therefore declined to consider constitutional challenges in waiver requests since at least 1976.[485] EPA in turn does not interpret nor attempt to apply the equal sovereignty doctrine or other constitutional provisions in this waiver determination. However, EPA notes that the D.C. Circuit in *Ohio v. EPA* rejected the petitioners' equal sovereignty claim, holding "that Section 209(b) is subject to traditional rational basis review for Commerce Clause legislation and—as no one disputes—that it is constitutional under that standard."[486]

As for claims regarding GHG and criteria pollutants policy, EPA notes that while GHGs operate on a transboundary scale, so too can criteria pollutants. EPA and states, as no one disputes, have regulated the transport of criteria pollutants across state boundaries since the inception of the Act.[487] For ozone—and also true for other pollutants such as particulate matter—

[483] *MEMA I*, 627 F.2d at 1115.
[484] *Id.* (quoting *Panitz v. District of Columbia*, 112 F.2d 39, 41 (D.C. Cir. 1940)).
[485] *See, e.g.*, 41 FR 44212 (Oct. 7, 1976) (declining to consider a due process violation claim); 43 FR 32182, 32184 (July 25, 1978) (rejecting constitutional objections as beyond the "narrow" scope of the Administrator's review).
[486] *Ohio v. EPA*, 98 F.4th 288, 308 (D.C. Cir. 2024) (holding further that the *Shelby County* was inapplicable to the waiver context in part because it was applied to the Fifteenth Amendment context, not to Congress's Commerce Clause power). EPA recognizes that petitions for certiorari were filed following the D.C. Circuit's decision. See *Diamond Alternative Energy v. EPA*, U.S. 24-7; *Ohio v. EPA*, U.S. 24-13. The Supreme Court denied certiorari in *Ohio* on December 16, 2024, thus declining to review the D.C. Circuit's merits holding with respect to the state petitioners' equal sovereignty claims discussed herein. The Supreme Court granted certiorari in *Diamond Alternative* on December 13, 2024, limited to the question of whether "a party may establish the redressability component of Article III standing by relying on the coercive and predictable effects of regulation on third parties." This standing question was not present in *Ohio*, where the D.C. Circuit concluded the state petitioners had standing to bring their equal sovereignty claims and resolved those claims on the merits.
[487] *See* CAA section 110(a)(2)(D)(i)(I) (requiring the regulation of pollutants from one state that "contribute[s] significantly to nonattainment in, or interfere with maintenance by, any other State . . .").

"upwind States contribute pollution to multiple downwind States in varying amounts."[488] Similarly, as seen from wildfires but also true of other sources depending on weather patterns and other factors, particles "can travel hundreds or thousands of miles and influence the air quality of regions far from the original source."[489] Indeed, long range transport of criteria pollutants can affect conditions in other countries or even continents. GHG's primary effect is at a global scale. But this difference in scale is not different in kind from the trans-boundary regulation of criteria pollutants. California's authority to regulate emissions within its borders does not cease merely because the relevant air pollutants or their impacts may cross political boundaries. We further discuss California's need for its motor vehicle standards, including with respect to both GHGs and criteria pollutants, in Section III.B. EPA views CAA section 209 as clear regarding its authority and obligation to grant this waiver; for more discussion, see Section IV.A. For discussion of other states' use of California's standards, see discussion of CAA section 177 in Section IV.B.

E. Other Legal Issues

A commenter further claimed that EPA cannot delegate more authority than it possesses under law, such that it cannot grant a waiver that allows CARB to regulate in a way that EPA itself cannot.[490] Contrary to their claim, by way of a waiver of federal preemption, EPA does not delegate any authority to California. Instead, CARB acts on authority granted it through California's own sovereign power. On the scope of a waiver and CARB's authority to set standards, see *supra* Section II.B.

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[488] *EPA v. EME Homer City Generation, L.P.*, 572 U.S. 489, 516 (2014) (citing 76 FR 48239–46).
[489] *See* EPA, *What is Particle Pollution?*, https://www.epa.gov/pmcourse/what-particle-pollution# (June 20, 2024); *see also* 88 FR 36654, 36670 (June 5, 2023) ("Studies have established that . . . transport [of ozone] occur[s] on a regional scale (i.e., thousands of kilometers) over much of the U.S.").
[490] TPPF, p.3.

Another commenter pointed to various bills in Congress to prevent California waiver authorization, as well as various states' legislation protecting "freedom of vehicle choice."[491] But bills in Congress, which have not been passed nor signed into law, do not affect the obligations imposed on EPA by statute. Similarly, legislation in various states bears no relevance to federal preemption waiver authority expressed in federal law. We further discuss various bills and state legislation in Section IV. A.

One commenter noted that EPA should at least delay action until after decision in *Ohio v. EPA*.[492] That decision was released prior to this action and was discussed briefly above.[493]

A commenter alleged in passing various other constitutional violations, including the Takings Clause of the Fifth Amendment, Dormant Commerce Clause, dormant foreign affairs preemption doctrine of the Supremacy Clause, equal sovereignty doctrine, Import-Export Clause, Privileges and Immunities Clause, and the Full Faith and Credit Clause.[494] They also alleged violations of the California Administrative Procedure Act and the California Health and Safety Code. Commenters likewise alleged various violations of the California constitution and of various California laws.[495]

Many of these comments were inadequately developed. In any event, as discussed above, EPA does not consider constitutional challenges in the waiver proceeding context. EPA's task is limited to consideration of the factors included in CAA section 209(b). Likewise, EPA's

[491] Transfer Flow, Inc., p.12.
[492] AFPM, p.5.
[493] *Ohio v. EPA*, 98 F.4th 288 (D.C. Cir. 2024).
[494] Valero, pp.25–26.
[495] Sinclair, p.9; Valero, p.26; AFPM, pp.14–15.

jurisdiction does not extend to considering the validity of CARB's rules under California law.[496] Such concerns are the province of state regulators and state courts, and challengers have had opportunity to address these concerns throughout the state's regulatory and judicial process. The California Attorney General, moreover, has indicated to EPA in public comments that it believes the ACC II regulatory program is valid under State law.[497]

One commenter claimed that granting a waiver for ACC II would amount to a regulatory taking.[498] They stated that their members have investment-backed interests at their properties "which may be forced to close as a result of ACC II's electric vehicle mandate." As a result, they claimed, California landowners will also be harmed by their commercial tenants' closures.

EPA need not address questions of constitutionality, as discussed in Section IV. D. and above. Nonetheless, commenters have failed to adequately explain how they meet the standard for a regulatory taking. But even if they did, this action concerns a state regulation, not federal, so it could not follow that the federal government is taking anything.

One commenter claimed that ACC II is preempted by the Renewable Fuel Standard ("RFS") program.[499] They claim that the ZEV quota displaces the required volumes of renewable fuels, both in California and in adopting section 177 states, "lead[ing] to plummeting consumption of biofuels" that they believe will not be shifted to other industries.

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[496] EPA notes that CAA section 209(b)'s criteria stand in marked contrast to other sections of the Act that do authorize or obligate EPA to evaluate whether the State has legal authority to carry out its plans. *See, e.g.*, CAA section 110(a)(2)(E) (requiring Title I State Implementation Plans to "provide (i) necessary assurances that the State … will have adequate personnel, funding, and authority under State (and, as appropriate, local) law to carry out such implementation plan (and is not prohibited by any provision of Federal or State law from carrying out such implementation plan or portion thereof)"), CAA section 112(l)(5) (requiring disapproval of section 112(l) State programs where "adequate authority does not exist, or adequate resources are not available, to implement the program").

[497] States and Cities, p.5 (indicating that CARB's ACC II Regulations "became effective under state law").

[498] AFPM, p.24.

[499] Illinois Corn Growers, pp.34–37.

As with EPCA, and like the various constitutional challenges discussed above, nothing in CAA section 209(b) suggests EPA must consider consistency with the RFS program in deciding to grant a waiver.[500] The commenter's concerns about volumes and shifting are therefore not germane to this proceeding. Further discussion of the relation of CAA section 177 to this proceeding may be found in section IV.B. See also discussion of the technical feasibility of the ACC II regulations in Section III.C.

Commenters characterized ACC II as "facially void and unenforceable," thus providing "zero public health benefit" and cannot be "at least as protective" as federal standards. They further stated that California cannot "need" an unlawful standard that it cannot implement.

Since EPA's evaluation of the State's standards is limited to the considerations expressed in CAA section 209(b), it does not evaluate whether the ACC II regulations are valid or enforceable under other federal or state laws. Moreover, the California Attorney General has informed EPA that the ACC II regulations are valid under State law. For further discussion on protectiveness, see Section III.A, and on California's "need" for these standards, see Section III.B of this notice.

Along similar lines, commenters associate the ACC II regulations with the ACC I program.[501] They incorporate here arguments made in the D.C. Circuit litigation over the ACC I waiver restoration action. EPA proceeds in this action with the benefit of the court's analysis, as

[500] *See also* CAA section 211(o)(12) ("Nothing in this subsection . . . shall affect or be construed . . . to expand or limit regulatory authority regarding carbon dioxide or any other greenhouse gas, for purposes of other provisions . . . of this chapter.").

[501] Valero, p.3; Ill. Corn Growers Ass'n Comment, p.38. The second commenter also noted the consolidated cases in the D.C. Circuit challenging California's Advanced Clean Truck program waiver, *W. State Trucking Ass'n v. EPA*, No. 23-1143. EPA recognizes no reason it must delay this action for the court to resolve litigation on a separate waiver. Indeed, the Advanced Clean Truck program is in effect, and EPA's positions remain the same.

commenters suggest.[502] EPA also here incorporates by reference relevant merits arguments made in its response brief.[503]

V. Decision

After evaluating CARB's waiver request and the ACC II regulations, the public comments and other materials contained in the administrative record, EPA is granting a waiver of preemption for each of the regulations that comprise the ACC II regulations and that CARB submitted for a waiver under CAA section 209(b). EPA is waiving the CAA section 209(a) preemption, pursuant to section 209(b), as it pertains to CARB's ACC II regulations as described above and that commence in the 2026 model year with a phase-in of the LEV IV and ZEV requirements through the 2035 model year, and then continue thereafter into subsequent model years at generally the 2035 model year levels of stringency.

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. Petitions for review must be filed within 60 days from the date notice of this final action is published in the Federal Register.

VI. Statutory and Executive Order Reviews

As with past waiver decisions, this action is not a rule as defined by Executive Order 12866. Therefore, it is exempt from review by the Office of Management and Budget as required for rules and regulations by Executive Order 12866.

In addition, this action is not a rule as defined in the Regulatory Flexibility Act, 5 U.S.C. 601(2). Therefore, EPA has not prepared a supporting regulatory flexibility analysis addressing the impact of this action on small business entities.

[502] *Ohio v. EPA*, 98 F.4th 288, 314 (D.C. Cir. 2024).
[503] Final Brief of Respondents, *Ohio v. EPA*, No. 22-1081 (D.C. Cir. 2023).

Further, the Congressional Review Act, 5 U.S.C. 801, et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, does not apply because this action is not a rule for purposes of 5 U.S.C. 804(3).[504]

Dated: December 17, 2024

Michael S. Regan,

Administrator.

[504] The U.S. Government Accountability Office (GAO) has issued a decision (in the context of its review of EPA's SAFE I Reconsideration decision) that the Congressional Review Act does not include adjudicatory orders and also excludes certain categories of rule from coverage, including rules of particular applicability. As part of this decision, the GAO also determined that even if the SAFE I Reconsideration waiver action were to satisfy the Administrative Procedure Act's definition of a rule, it would be considered a rule of particular applicability, and, therefore, would still not be subject to the CRA's submission requirement. https://www.gao.gov/products/b-334309.