California Air Resources Board

Appendix A

Legal Comments and Responses

Public Hearing Date: April 27-28, 2023
Agenda Item No.: 23-4-2.

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The section headers used below reflect the substance of the comments responded to in a given section of this document, not CARB's position, and are provided for the reader's convenience.

I. Rulemaking and Administrative Procedure Act Comments

A. The Advanced Clean Fleets Regulation is Not Needed to Achieve California's Emission Reduction Goals

Comment [45d-259] (Valero): "The California Health and Safety Code requires that before a new rule is adopted, it must be deemed necessary to achieve a legitimate objective within the scope of an agency's authority [Health and Safety Code § 40727]. The proposed Advanced Clean Fleets (ACF) rule arbitrarily and incorrectly presumes that electric vehicles (EV) and hydrogen fuel-cell vehicles (FCEV) offer the only way to achieve desired emission reductions for GHGs and criteria pollutants such as NOx. However, as detailed below, the draconian and costly vehicle replacement and purchase mandates set forth in the proposed ACF rule are neither the only nor the best way to achieve meaningful emissions reductions from the medium- and heavy-duty truck sector."

Response: No change was made in response to this comment. CARB disagrees that the ACF regulation is not needed to meet the emission reduction goals of California law. As a threshold matter, CARB notes that HSC § 40727 only applies to rulemaking actions enacted by district boards, defined as the governing bodies of air pollution control districts or air quality management districts. HSC §§ 39025, 39026. Under Govt. Code § 11349(a), however, the Office of Administrative Law review of rulemaking actions enacted by state agencies considers the "necessity" for the regulation.[1] The rulemaking record for this rulemaking action clearly satisfies that standard, as well as the "reasonably necessary to effectuate the purpose of the statute" standard applicable for judicial review under Govt. Code § 11350(b)(1). The record establishes both that CARB is authorized to promulgate the ACF regulation, and that the ACF regulation is needed to effectuate the purposes of the applicable statues or other provisions of law implemented by the ACF regulation.

First, CARB has been granted broad and extensive authority under the Health and Safety Code (HSC) to adopt the Proposed ACF regulation. HSC §§ 39600 and 39601 authorize the California Air Resources Board (CARB or Board) to adopt standards, rules, and regulations, and to do such acts as may be necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law. HSC §§ 43013 and 43018, 43100, 43101, 43102, and 43104 authorize the Board to adopt emission standards, in-use performance standards, and test procedures to control air pollution caused by motor vehicles and motor vehicle engines, and HSC §§ 43013 and 43018 specifically require CARB to achieve the maximum feasible and cost-effective emission reductions from new and in-use vehicular and

[1] Necessity means "the record of the rulemaking proceeding demonstrates by substantial evidence the need for a regulation to effectuate the purpose of the statute, court decision, or other provision of law that the regulation implements, interprets, or makes specific, taking into account the totality of the record. For purposes of this standard, evidence includes, but is not limited to, facts, studies, and expert opinion." Govt. Code § 11349(a).

other mobile sources. For instance, HSC § 43108(a) directs CARB to achieve "the maximum degree of emission reduction possible" from both vehicular and other mobile sources, HSC § 43018(c) provides that in carrying out section 43018, CARB shall adopt standards and regulations that will result in the most cost-effective combination of control measures on all classes of motor vehicles and motor vehicle fuel, including, but not limited to, reductions in motor vehicle exhaust and evaporative emissions, and reductions in in-use vehicular emissions through durability, and HSC § 43013(h) expressly directs CARB to expeditiously reduce NOx emissions from "diesel vehicles and other vehicular and mobile sources which significantly contribute to air pollution problems." HSC § 39602.5 directs CARB to adopt rules and regulations pursuant to the authority of HSC § 43013 that, in conjunction with other measures, will achieve federal ambient air quality standards by applicable attainment dates.

CARB is further required to reduce emissions of toxic air contaminants (TAC) under California's air toxics laws. HSC § 39667 authorizes the Board to adopt emissions standards for new motor vehicles to achieve the "maximum possible reduction in public exposure to toxic air contaminants," and states that regulations applicable to new motor vehicles "shall be based upon the most advanced technology feasible for the model year.

CARB is also charged by HSC § 38500 et seq. to monitor and regulate sources of GHG emissions and is directed by HSC § 38560 to adopt regulations to "achieve the maximum technologically feasible and cost-effective greenhouse gas emission reductions from sources or categories of sources, subject to the criteria and schedules set forth in this part," and is directed by HSC § 38566 to ensure that in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions authorized by Division 25.5 of the Health and Safety Code, that statewide greenhouse gas emissions are reduced to at least 40 percent below the statewide GHG emissions limit no later than December 31, 2030.

In addition to the aforementioned statues, Executive Orders issued by Governors of California, prior Board resolutions, and Board approved SIP strategies[2] establish emission reduction goals that expressly direct state agencies, including CARB to support and develop the ZEV market in California.

Second, as described in detail in Section II of the ISOR, diesel-fueled on-road medium- and heavy-duty vehicles emit significant quantities of harmful criteria pollutants, toxic air contaminants, and greenhouse gases that threaten the public health and welfare of Californians, impede California's ability to attain compliance with federal ambient air quality standards, and contribute to climate-change induced harms that threaten the State. The ACF regulation accordingly constitutes an entirely rational response to address those harms, especially given that zero emission vehicles both emit no quantities of criteria pollutants, toxic air contaminants, or greenhouse gases in tailpipe emissions under any and all operational modes, (thereby reducing these emissions near roadways, railyards, and other areas frequented by medium- and heavy-duty vehicles), and given that zero emission vehicles reduce overall emissions as well. The ACF regulation will additionally serve to advance California's goals of expanding the market for ZEVs in California. These conclusions are entirely supported by the analysis demonstrating, as discussed in the ACF 15-Day Notice

[2] See ISOR, pp. 101-106

package as Appendix B, the ACF regulation is projected to cumulatively reduce NOx emissions by over 146,800 tons, PM emissions by over 6,800 tons, and GHG emissions by over 300 million metric tons by 2050, while also generating a net cost savings to affected fleets of $48 billion dollars.

1. CARB must consider the full lifecycle impact of all available technologies

Comment [45d-259] (Valero): "CARB has long recognized that evaluating the lifecycle emissions of fuels is the most accurate way to measure and reduce GHG emissions, but has chosen to implement this powerful GHG measure selectively, and unevenly, across the transportation sector. To the extent CARB seeks to achieve real reductions in GHG emissions, then it must consider the full lifecycle impact of all available technologies."

Comment [45d-349] (Alliance for Vehicle Efficiency): "The Proposal evaluates a ZEV only on the basis of tailpipe emissions. This distorts the environmental gains of vehicles with known upstream emissions. Relying on the current definition of ZEVs serves as a barrier to automotive technologies that can deliver significant real-world emission reductions for trucking sector. The Proposal mentions the upstream emissions associated with non-ZEV vehicles but does not appear to address the upstream emissions (nor the environmental impact) of ZEV technologies except to say ZEV emissions are much lower. The inclusion in CARB's Proposal of near-zero emission vehicles (NZEVs) acknowledges the challenges of transforming the current long-haul fleet. The Proposal's definition of NZEVs, however, picks technology winners and losers instead of focusing on the overall environmental gains associates with various propulsion systems. Such an approach will likely narrow the options fleet owners could employ to comply. Looking beyond a vehicle's tailpipe emissions for all ZEVs and NZEVs addresses the true environmental impact of these technologies."

Response: No change was made in response to this comment.

Although GHG emissions attributable to the production of BEVs (i.e., emissions associated with the production of batteries, and other systems and components used in BEVs) are currently higher than the GHG emissions attributable to the production of conventional ICE vehicles, overall BEVs operating on California's average grid power have much lower lifecycle GHG emissions than comparable ICE vehicles, because GHG emissions attributable to the operation of BEVs are lower than the corresponding GHG emissions attributable to the operation of conventional vehicles, and ultimately offset the incremental GHG emissions associated with the manufacture of the vehicles over their useful lives. For example, the Department of Energy performed a cradle-to-grave lifecycle GHG emission analysis for small sport utility vehicles and found that future BEVs and FCEVs would have lower lifecycle emissions than ICE vehicles even the lowest carbon intensity drop-in renewable fuel, while current BEVs, FCEVs, and PHEVs have lower lifecycle emissions than any ICE vehicle or hybrid gasoline vehicle.[3] Similarly, European studies on heavy-duty BEVs found that GHG emission savings of 63 to 76 percent or more are achieved over the vehicles' life cycle when compared

[3] Elgowainy, Amgad, Jarod Kelly, Michael Wang. Life Cycle Greenhouse Gas Emissions for Small Sport Utility Vehicles, September 8, 2021 (web link: https://www.hydrogen.energy.gov/pdfs/21003-life-cycle-ghg-emissions-small-suvs.pdf, last accessed January, 2023).

to conventional ICE vehicles using various biofuel blends.[4] More evidence is provided as Master Response 4, as well as response to comment 270-4 in the Response to Comments on the Draft Environmental Analysis.

2. Existing drop-in fuel and ICEs achieve greater emissions reductions compared to CARB's defined ZEVs while commercially available and widely in use today

Comment [45d-259] (Valero): "CARB's approach in the proposed regulation would sacrifice real emissions reductions today in order to achieve arbitrary policy objectives to "lead the transition away from petroleum fuel towards electric drivetrains" and to enhance widespread ZEV development based on the false and unsupported premise that ICE vehicles cannot achieve the same or better standard of performance as ZEV, notwithstanding numerous promising developments in carbon capture and other innovations in emission reduction technologies.

Response: No change was made in response to this comment. The commenter incorrectly states that ICE vehicles can meet or exceed a zero-emission performance standard while providing no evidence to support their claim. The commenters seem to suggest that "carbon capture and other innovations in emission control technologies" could sufficiently capture 100 percent of the exhaust pollution from an ICE vehicle thus qualifying it to meet or exceed a zero-emission performance standard. Carbon capture emission control technology is only 90 percent effective at reducing emissions of CO_2. Furthermore, NOx, PM, and toxic diesel pollutants would still be emitted since ICE vehicles utilize combustion technology. By definition, ZEVs emit no levels of criteria or GHGs in their exhaust emissions. Please refer to the CEQA Draft Environmental Assessment, response to comment 259-1 for more details on the commenters claim about carbon capture technologies.

B. Economic Analysis of the ACF Regulation

Comment [45d-259] (Valero): CARB's assessment of the economic impacts resulting from the ACF regulation "fails to meet applicable legal standards requiring comprehensive assessment of economic impacts, resulting in an ISOR that grossly underestimates the economic impacts of this unprecedented action."

Comment [45d-319] (Clean Energy): In its rush to embrace zero emission technologies, similar to its actions in the Advanced Clean Truck (ACT) proceedings, CARB has ignored substantive and procedural limits on its powers. The California Environmental Quality Act ("CEQA"), Public Resources Code § 21000 et seq., and California Administrative Procedure Act ("APA"), Government Code §11340 et seq., impose substantive and procedural guardrails that CARB must follow when developing regulations or other programs to attain air quality standards. CEQA is designed to protect the environment by requiring state and local government agencies, like CARB, to evaluate and disclose the significant environmental impacts of proposed projects and to adopt all feasible alternatives or mitigation measures to

[4] The International Council on Clean Transportation, February 2023. A Comparison of the Greenhouse Gas Emissions of European Heavy-Duty Vehicles and Fuels. (web link: https://theicct.org/wp-content/uploads/2023/02/lca-ghg-emissions-hdv-fuels-europe-feb23.pdf, last accessed February 2023).

mitigate those impacts. The APA aims to reduce economic burdens on individuals and businesses in the state, by requiring agencies to evaluate and disclose the economic impacts of proposed regulations and adopt the most cost-effective set of regulatory measures to achieve their goals.

As discussed below, CARB's draft regulation fails to satisfy these legal requirements. To address those deficiencies, Clean Energy proposes that CARB consider adopting (1) the Best Available Control Technology Alternative, a modification to the proposed project that the draft EA improperly rejects, and (2) an additional requirement related to the proposed "ZEV Unavailability" exemption, which as drafted allows fleet owners to purchase a new internal combustion ("ICE") vehicle if no ZEV or near-zero-emissions vehicle ("NZEV") is commercially available, provided that certain requirements are met. Rather than giving fleet owners unfettered discretion to purchase any ICE vehicle—including diesel vehicles—Clean Energy proposes that CARB require or incentivize fleet owners to purchase cleaner low-NOx renewable natural gas powered vehicles instead."

Response: CARB did amend the ACF regulation to incorporate modifications that somewhat, but not entirely, reflect the proposals advanced by the commenter. See Notice of Public Availability of Modified Text and Availability of Additional Information, posted March 23, 2023.[5]

CARB disagrees that its promulgation of this rulemaking action was inconsistent with either CEQA or the APA. Its response to the allegations regarding inconsistency with CEQA is provided in response to Comment 45d-280, in section I.D., "Consideration of Alternatives" below.

CARB also disagrees with the commenters' contentions that it did not meet its obligations under the law, including the APA and the California Health and Safety Code, to evaluate and assess the economic impacts of the ACF regulation based on the totality of the evidence in the record before it. These assessments are contained in the SRIA, Economic Impact Statement, and supporting documents and appendices. CARB's analyses assessed the factors cited in the comment, including those specified in Health and Saf. Code § 43101 and 57005 and California Govt. Code §§ 11346.3 and 11346.5(a)(7) regarding the impact of the ACF standards on the economy of the state, whether there are less costly alternatives or combinations of alternatives that would be equally as effective in achieving increments of environmental protection in a manner that ensures full compliance with statutory mandates within the same amount of time as the proposed regulatory requirements, the creation or elimination of jobs within the state, the creation of new businesses or the elimination of existing businesses within the state, the competitive advantages or disadvantages for businesses currently doing business within the state, the increase or decrease of investment in the state, the incentives for innovation in products, materials, or processes, and the benefits of the regulation, including, but not limited to, benefits to the health, safety, and welfare of California residents, worker safety, and the state's environment and quality of life,

[5] Notice of Public Availability of Modified Text and Availability of Additional Information, posted March 23, 2023; Available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/15daynotice.pdf

and any significant, statewide adverse impacts directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

The SRIA and related analyses document CARB's assessment of the potential for adverse economic impact of the ACF regulation on California's businesses and individuals, including the projected impact of the ACF regulation on the ability of California businesses to compete with businesses in other states, the impacts and benefits of the ACF regulation on businesses, including small businesses, and individuals (SRIA, pp. 30-50), [emissions benefits], the direct costs to typical businesses (SRIA, pp. 102- 104), direct costs to small businesses (SRIA, pp. 104-106), and direct costs to individuals (SRIA, p. 107). The ACF regulation is unlikely to have a significant impact on California's economy, (SRIA, p. 129), and CARB estimates the ACF regulation would provide significant overall net benefits – roughly $48 billion in cost savings by calendar year 2050, in Appendix B to the 15-Day Changes.

The commenter also asserts CARB is also required to assess the factors specified in Health and Saf. Code § 43018.5 but CARB is not adopting the ACF regulation pursuant to the authority of that statutory provision.

To the extent the commenter asserts CARB has not considered the potential for leakage, as required by Health and Saf. Code § 38562, see Agency Response to Comment I.B.3

1. Analysis Supporting CARB's Position That Acquisition Costs for ZEVs Will be Offset By Operating Costs

Comment [45d-259] (Valero): The analysis presented in the ISOR and SRIA is deficient in several respects. First, although CARB acknowledges that the capital investment required for fleet owners to purchase new ZE vehicles is significantly greater than the cost to replace current ICE vehicles, the analysis nevertheless projects eventual cost savings for fleet owners based on CARB's unsupported speculation that vehicle owners will realize income from LCFS credits. No analysis is provided to support these speculative values."

Response: No change was made in response to this comment. As described in the ACF SRIA, Chapter VIII of the ACF ISOR, and Appendix G to the ACF ISOR, the regulation is expected to reduce the cost to California fleets. These savings occur through a variety of sources including reduced fuel costs, lower maintenance expenses, no usage of diesel exhaust fluid, and others. Revenue from the state's LCFS regulation is one component of these savings, but is not the main driver behind expected savings. All data sources and calculations used in CARB's economic analysis are identified in the ACF ISOR and are part of the rulemaking record, so commenter's claim that "no analysis is performed to support these speculative values" is factually incorrect. Further, staff's analysis is supported by numerous other analyses performed by third-party groups as discussed in more detail in section "Costs – Cost of the Regulation" in "Cost Comments" of the "45-Day Comment Period and First Board Hearing Public Comments with Agency Responses."

2. Competitive Impacts to Petroleum and Related Industries

Comment [45d-259] (Valero): "CARB provides no or only superficial consideration of competitive impacts to oil and gas production and refinery businesses in the state and the numerous other businesses related to the petroleum industry (e.g., truck stops, parts stores,

storage terminals, asphalt production, petrochemicals, lubrication facilities, and others). After designing the California Low Carbon Fuel Standard to incentivize investment in production of renewable diesel and other low-carbon renewable fuels, CARB now fails to consider impacts on these industries as a result of forcing vehicles that use these fuels out of the market."

Response: No change was made in response to this comment.

The SRIA and Chapter VIII of the ACF ISOR fully analyzed the impacts to this sector in terms of employment and sales, and CARB completed an updated analysis reflecting the final regulations in Appendix B to the 15-Day Changes. The competitive advantage analysis focused correctly on the directly affected industries – vehicle and engine manufacturers and regulated fleets – and the Department of Finance reviewed and concurred with the analysis' overall methodology. Staff assume the fossil fuel production and distribution industries may scale down proportionally to the decline in diesel and gasoline demand from California's medium- and heavy-duty vehicle fleets. But staff do not expect the industries and jobs to be eliminated. Rather, some indirectly affected businesses, including truck stops, are expected to remain operational and expand fueling options to include hydrogen and electric DC fast charging; these outlets will continue to be able to offer other products and services to drivers, such as convenience foods, that tend to be their profit centers. As the commenter notes, charging facilities require space, among other things such as convenient road access and electrical power, which truck stops have. Contrary to the comment, they may be well positioned to compete for charging and hydrogen refueling use or leverage their locations for other uses. In addition, the ACF regulation is expected to result in a positive macroeconomic impact on some sectors including electric power generation, transmission, and distribution as well as construction.

While not discussed specifically in the Competitiveness section in the SRIA, the macroeconomic analysis does consider the general impacts the commenter describes from reduced diesel, gasoline, and natural gas demand and increased electricity and hydrogen demand as described in Chapter VIII of the ACF ISOR. The indirect economic effects to other industries related to changes in demand for diesel and gasoline and electricity are also accounted for as part of the macroeconomic analysis, which uses a California economy-wide model to consider all of these types of indirect effects. Impacts of the regulation to California's economy are discussed in more detail starting on page 222 in Chapter VII Section F of the ISOR.

3. Leakage potential of the ACF rule

Comment [45d-259] (Valero): "As required by HSC § 38562(b)(8), CARB must analyze the potential for emission reduction activities in the state to be offset by an equivalent or greater increase in emissions of GHGs outside the state. This analysis necessarily requires estimating emissions impacts outside the state, which CARB has failed to do. Specifically, CARB fails to account for the economic and emissions consequences that would occur if disadvantages to California oil and gas production, refining, and renewable fuel businesses ultimately result in greater reliance on imports to meet remaining demand for non-transportation fuels impaired by this rulemaking and/or for residual transportation fuel demand. Similarly, CARB does not consider the likelihood that older ICE vehicles compelled to be taken out of service in California will continue to be used out of state and potentially outside the United States, where they are less likely to combust fuels that are subject to a low-carbon fuel standard."

Comment [45d-270] (WSPA): "HSC § 38562(b)(8) requires CARB to minimize the 'leakage' potential of any regulatory activities. In its ACF proposal, CARB fails to consider the leakage potential of its ZEV mandate, based on an accurate lifecycle analysis of the GHG emissions associated with electric vehicles and associated infrastructure, as well as residual demand for liquid fuels for ICEVs remaining in 2040 and beyond."

Response: No change was made in response to these comments. As a threshold matter, CARB notes that the ACF regulation does not compel that ICE vehicles that are retired from service from affected fleets to be used outside of either California or the United States.

The term "leakage" means emissions increases outside California that offset emission reductions in California. Health & Saf. Code § 38505(j). CARB disagrees that it failed to consider the potential for the ACF regulation to result in GHG emissions outside of California that offset projected GHG emissions reductions in California.

CARB analyzed potential emissions outside California as impacts associated with battery mining and manufacturing which are discussed as part of the lifecycle emissions analyzed. See the response to comment 270-4 on pages 66-67 and Master Response 2 and 4 of the Response to Comments on the Draft Environmental Analysis for responses on Semi-Precious Metal Availability and Mining Impacts and Failure to Perform a Full Lifecycle Emissions Model, respectively. The analysis for the ACF regulation shows that the anticipated GHG emission reductions are significant. The precise potential emissions from manufacturing outside California that may not otherwise occur but for the ACF regulation cannot be estimated with any reasonable accuracy, given the extent of significant uncertainties and variation regarding such emissions. These uncertainties and variations include manufacturing location, sources of materials and components, process technologies used at various facilities, local environmental regulations in foreign countries, etc. However, numerous studies have shown the lifecycle GHG emissions of existing ZEVs, including GHG emissions from well-to-wheel operations and vehicle manufacturing and disposal, are lower than those of ICE vehicles. The emission reductions within California from the ACF regulation are expected to outweigh emissions associated with manufacturing and result in a significant beneficial environmental impact. See page 68 of the Final Environmental Analysis.

Also, assuming this regulation could "ultimately result in greater reliance on imports to meet remaining demand for non-transportation fuels impaired by this rulemaking and/or for residual transportation fuel demand", is speculative, and in any event non-transportation fuels such as natural gas are already imported into California, and some of such fuels are used for electricity generation. Furthermore, any "residual transportation fuel demand" met by imported transportation fuels would be subject to the CARB's LCFS regulation, and the emissions associated with use of those fuels was analyzed in response to comment 270-4 on pages 66-67 in the Response to Comments on the Draft Environmental Analysis.

Moreover, electricity produced out of state and used in-state for ZEV fuel demand will be controlled in separate programs given that imported electricity is included in the AB 32 GHG emissions inventory and therefore subject to the SB 32 statutory emission reduction target for 2030. Any electricity transmitted (whether from in state or out of state) was addressed in the ACF analysis as the emissions factors used reflect compliance with the SB 100 Renewable Portfolio Standard targets. The evidence in the record does not show that the demand for electricity from the ACF regulation is significant, it is only 3 percent of the forecasted grid

demand in 2035, see Table 2-3 in the Response to Comments on the Draft Environmental Analysis. Presuming this small demand will increase retail electricity prices, which are subject to regulatory controls, is speculative. In fact, some studies indicate transportation electrification will have the opposite effect and reduce ratepayers' costs because of higher utilization of generation assets, see ISOR page 96.

Comment [45d-322] (Stericycle): "Including the occasional out-of-state vehicle into a fleet owner's California fleet could encourage fleet owners to consolidate fleets outside of California to the extent they are able to. We request that CARB remain mindful of SB 1020's mandate that, in implementing clean energy policies, CARB employ measures to avoid greenhouse gas "leakage," that is, increases in greenhouse gas emissions elsewhere [citing to Public Utilities Code section 454.53(a)]."

Response: No change was made in response to this comment. SB 1020 (Laird, Stats. 2022, ch. 361) primarily revises existing California policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045 (in preexisting Public Utilities Code §454.53) to now include interim targets, specifically to provide that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

SB 1020 also requires the CPUC, CEC, and CARB, to issue a joint reliability progress report on or before December 1, 2023, and annually thereafter. That report must review system and local reliability within the context of that state policy, with a particular focus on summer reliability, identify challenges and gaps regarding system and local reliability, and identify amounts and causes of any delays to achieving compliance with all energy and capacity procurement requirements established by the CPUC.

As the commenter notes, SB 1020 added subdivision (a) to PUC § 453.59, which specifies: "(a) It is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035, 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040, 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045, and 100 percent of electricity procured to serve all state agencies by December 31, 2035. The achievement of this policy for California shall not increase carbon emissions elsewhere in the western grid and shall not allow resource shuffling. The commission and Energy Commission, in consultation with the State Air Resources Board, *shall take steps to ensure that a transition to a zero-carbon electric system for the State of California does not cause or contribute to greenhouse gas emissions increases elsewhere in the western grid, and is undertaken in a manner consistent with clause 3 of Section 8 of Article I of the United States Constitution.* The commission, the Energy Commission, the State Air Resources Board, and all other state agencies shall incorporate this policy into all relevant planning." (Emphasis added).

The ACF regulation is not, itself, a step to ensure the transition to a zero-carbon electric system, though its emission reductions are enhanced by that transition. CARB is certainly mindful of SB 1020's directive, both where it is applicable and where (as here) it is not.

4. Economic Impacts of Electrification and Strains on California's Electrical Grid.

Comment [45d-259] (Valero): "[D]espite CARB's access to ample information related to the economic impacts of electrification and existing strains on California's grid, CARB has failed to address these impacts, constraining its analysis to a narrow consideration of direct costs to fleet owners associated with vehicle purchase, fuel costs, maintenance, and an unsupported the like [sic]. CARB's SRIA projects a net cost savings based on part on unsupported assumptions regarding projected LCFS revenue, and fails to account for extensive economic impacts stemming from the transportation sector…."

Response: No change was made in response to this comment. The Agency Responses to Comments I.B.1, I.B.2, and I.B.3 are incorporated by reference into this comment.

CARB disagrees with this comment that the SRIA does not account for the indirect effects of the regulation on sectors outside of vehicle manufacturing. CARB prepared the ACF SRIA, Chapter VIII of the ACF ISOR, and related analyses that are required under the Administrative Procedures Act and its implementing regulations. Chapter VIII, Section f of the ACF ISOR, p. 222 et seq., discusses the macroeconomic impacts based on decreases in demand for diesel, gasoline, and natural gas and the associated increase in demand for electricity and hydrogen resulting from the ACF regulation. The reduction in spending on fossil fuels results in decreases in demand for petroleum and coal products manufacturing and oil and gas extraction, as well as the industries that support the retail sale of fuels to consumers represented in the retail and wholesale trades. The increase in consumer spending on electricity has the opposite effects on the electric power generation, transmission, and distribution industry. The evidence in the record does not show that the demand for electricity from the ACF regulation is significant, it is only 3 percent of the forecasted grid demand in 2035, see Table 2-3 in the Response to Comments on the Draft Environmental Analysis. Presuming this small demand will increase retail electricity prices, which are subject to regulatory controls, is speculative. In fact, some studies indicate transportation electrification will have the opposite effect and reduce ratepayers' costs because of higher utilization of generation assets, see ISOR page 96.

As discussed in the ACF SRIA and Chapter VIII of the ACF ISOR, employment and output impacts to these sectors track with the changes in demand. Thus, the electric power industry is one of the main industries to benefit from the regulation. The operational cost-savings from fuel and maintenance expenditures realized by consumers from the regulation will be redirected to other sectors of the economy. As a result, the overall net change in employment and state output is less than 0.2 percent relative to the baseline. See the CEQA Draft Environmental Analysis, Master Response 1 and responses to comment 270-10 regarding grid impacts, and in Chapter IV.6 on Costs – Electricity Costs of the FSOR on electricity prices.

5. The SRIA Cannot Accurately Predict the Cost of Compliance Within Each [Time] Period as Required by [CAA] Section 202(a)

Comment [45d-290] (WJ): "CARB's SRIA looks not at the cost of compliance within each period based on determined methods of compliance, but at the macroeconomic costs of the ACF Regulation as a whole across the state compared to baseline operations. (ISOR at 157-58.) Further, major changes were made to the proposed ACF Regulation after CARB completed its SRIA. (Id. at 159-60.) As explained in the ISOR, CARB's SRIA modeling assumed that high priority fleets would comply solely through meeting the ZEV milestone requirements. However, in the proposed regulation, high priority fleets by default must meet the Model Year Schedule, but may opt-in to the ZEV Milestone Option if they waive their useful life rights (see discussion above). For this reason, the SRIA cannot accurately predict the cost of compliance within each period as required by section 202(a).

CARB has identified numerous cost-barriers to ACF implementation, including high vehicle upfront costs and the real concern that ZEVs will not be able to replace existing combustion-powered vehicles on a one-to-one basis due to payload, mileage, or other issues. (ISOR at 200 [stating that "higher upfront cost of ZEVs can place a barrier in vehicle purchasing patterns" and that ZEVs can meet *most* daily needs on a one-to-one basis provided the ZEV is placed in applications where it is suitable].) Yet CARB conveniently ignores these real challenges in its SRIA. This economic analysis is not sufficient to meet the demands of section 202(a)."

Response: No change was made in response to this comment. As a threshold response, CARB notes that Section 202(a) of the Clean Air Act governs the US EPA's adoption of certain regulations, not CARB's rulemaking procedures. To obtain a preemption waiver under Section 209(b) of the Clean Air Act, CARB's regulations need only be consistent with Section 202(a), and that assessment will occur, if ever, in a separate proceeding before U.S. EPA. In any event, CARB estimated the cost of compliance with the ACF regulation. *See e.g.*, ISOR at pp. 79, 180-202. The Agency Responses to Comments I.B.1 – I.B.4 and to Comment III.A.1 are hereby incorporated into this response.

As discussed in Chapter VIII of the ACF ISOR, staff made several modifications to the proposal between the release of the SRIA and the ISOR, one of which was to allow high priority fleets to comply using one of two options, the default Model Year Schedule and the opt-in ZEV Milestones Schedule. The assumption was depending on the type of vehicle used, fleets would be more likely to opt for one schedule over another. 50 percent of Group 1 vehicles were assumed to follow the Model Year Schedule, 25 percent of Group 2 vehicles, and 0 percent of Group 3 vehicles. Staff disagrees with the commenter's claim that costs cannot be predicted. The Model Year Schedule and ZEV Milestone Schedule both will result in a transition of the fleet from ICE to ZEV by roughly 2042. Both pathways result in similar number of ZEVs, particularly for Group 1 and Group 2 vehicles. As a result, the costs remain similar regardless of if fleets are using one schedule over another and the fleet owner is expected choose which option works better for them based on the totality of information available to them including costs but also fleet needs, duty cycle needs, infrastructure availability, and the impact other regulatory provisions.

Staff has not modeled the impacts of the various exemptions available to fleets due to the uncertainty in estimating the number of exemptions granted and the expected negligible

impact on overall emissions and costs. To the extent that exemptions are granted, the costs to the fleet will remain similar to costs in the baseline scenario showing no impact to the fleet owner. To the extent that fleets opt into different pathways and exemptions, it may lower the cost of the regulation and staff's analysis may be conservative.

See Response to Comment III.A.1 regarding the Section 202(a) aspect of this comment.

6. The SRIA Underestimates Economic Impacts on Low-Income Communities from Pass-Through of Higher Consumer Costs.

Comment [45d-259] (Valero): "In establishing GHG emission reduction limits and standards to achieve statewide GHG emission goals, SB 32 directs CARB to ensure that its activities do not disproportionately impact low-income communities. Recognizing that the costs incurred by affected businesses and the public sector ultimately will flow to consumers, the SRIA projects that total personal income growth for Californians will result in a decrease of approximately $2.1 billion by 2050. However, this projection is based on changes attributable to job losses and gains among various employment sectors. The SRIA does not quantify the increased costs to consumers resulting from passthrough of vehicle purchase costs, nor does it assess the disproportionate impact on low-income communities, for whom costs of goods represent a relatively larger share of household budgets."

Response: No change was made in response to this comment. Commenter makes several inaccurate claims regarding the ACF regulation's economic analysis which misstates the results. As described in the ACF SRIA and Chapter VIII of the ACF ISOR, staff's analysis included a macroeconomic analysis of the regulation's impact. This analysis included the effect of passthrough costs associated with ZEVs including their purchase costs, infrastructure costs, and operational costs. These passthrough effects and macroeconomic impacts were quantified in several ways including the expected change in personal income. Therefore, commenter's assertion that the SRIA did not quantify the increased costs to consumers is factually incorrect.

7. CARB's Assessment of the Total Cost of Ownership (TCO) is not Supported by Substantial Evidence

Comment [45d-290] (WJ): "CARB's assessment of cost of ownership is not supported by substantial evidence." Nor does the Public Notice comply with Section 11346.5(a)(9) of the Government Code. Specifically, prior to the release of the Notice of Public Hearing—which appears to be CARB's notice of proposed action under Section 11346.5(a)—WSTA and the Truck & Engine Manufacturers Association ("EMA") submitted evidence to CARB demonstrating CARB's projected cost of the ACF Regulation on regulated parties was far too low. Unfortunately, these issues have not been addressed in CARB's Total Cost of Ownership ("TCO") analysis attached as Appendix G to the ISOR.

Sean Edgar of CleanFleets performed a technical review of the TCO, which is attached as Exhibit "B" to this letter. Mr. Edgar notes several inaccurate assumptions in the TCO. For instance, the TCO ignores data from EMA showing "ZEV purchase costs that are too low,"

and that ZEVs cost a company much more to purchase than traditional vehicles. (Exhibit "B" at 2.) Conversely, the "ZEV residual values" in the TCO "are too high." (Id.)

In addition, the TCO does not take into consideration the fact that ZEVs "are not able to perform the same amount of work as traditional trucks," requiring the purchase of additional ZEVs to perform the same tasks as a smaller number of traditional vehicles. (Id.)

The TCO also does not take into account the fact that the transition from traditional ZEVs will "require new maintenance facilities and equipment investments" on the part of fleet owners, as well as "the build-out and maintenance of a completely new electricity charging or hydrogen fueling infrastructure." (Ex. "B" at 2.) Nor is there any effort to quantify the "lost productivity" associated with charging ZEVs, the infrastructure costs for sleeper cab tractors, and the maintenance costs for electric infrastructure. (Id.) Each of these issues will substantially increase the costs to fleet owners beyond that stated in the TCO. As a result, the TCO is incomplete and unsupported by substantial evidence.

The TCO also fails to take into consideration data collected by CARB that is central to the cost of ownership. For instance, CARB, working in collaboration with the U.S. Department of energy's National Renewable Energy Laboratory ("NREL"), recently published a report on a demonstration project concerning heavy-duty EVs at Foothill Transit (the "Foothill Report"). The purpose of the Foothill Report was to "compare performance and cost of the BEBs [Battery-Electric Buses] to that of conventional technology in similar service and track progress over time." (Ex. "B" at 3.) The Foothill Report included numerous important findings that undermine the conclusions in the TCO, including the fact that "electricity is 5 to 6.5 times more expensive than CNG fuel," that EVs have much higher per-mile maintenance costs than CNG vehicles, and that EVs have much greater downtime than CNG vehicles. (Id.) Despite the fact that CARB participated in the Foothill Report, the TCO contains none of the data or lessons learned in the report.

As explained by Mr. Edgar, the TCO also significantly understates the upfront costs of ZEV trucks. For instance, Mr. Edgar's report contains examples showing the actual price of certain ZEVs is over twice as much as the TCO presumes. The TCO also erroneously assumes that the price of ZEVs will decrease. Mr. Edgar provides data from 2022 showing that the price of ZEVs is actually increasing substantially. (Ex. "B" at 3-5.)

In short, the TCO is flawed as an informational document because it does not include important information regarding costs of ownership, including CARB's own information. Before considering the ACF Regulation, the TCO should be updated significantly to provide further information regarding cost of ownership.

Response: No change was made in response to this comment. CARB disagrees that its assessment of the cost of ownership is not supported by substantial evidence.

Substantial evidence is defined as "evidence of ponderable legal significance, evidence that is reasonable, credible and of solid value." (Citations omitted). … The focus is on the quality, rather than the quantity, of the evidence. 'Very little solid evidence may be "substantial," while a lot of extremely weak evidence might be "insubstantial." (Citations omitted). "Inferences may constitute substantial evidence, but they must be the product of logic and reason." "Expert opinion testimony constitutes substantial evidence only if based on conclusions or assumptions supported by evidence in the record. Opinion testimony which is

conjectural or speculative "cannot rise to the dignity of substantial evidence." (Citations omitted). *Rodenberry v Rodenberry.*[6] "The ultimate test is whether it is reasonable … to make the ruling in question in light of the whole record." *Id.* at 652.

As part of this rulemaking action, CARB performed an initial assessment of the total cost of ownership (TCO) of battery-electric and fuel cell vehicles in comparison to their conventionally-fueled counterparts. See, *Appendix G to the Staff Report: Initial Statement of Reasons for the Advanced Clean Trucks regulation*. CARB's assessment of the TCO considered a wide range of factors, including base vehicle prices, taxes, financing costs, fuel and maintenance costs, fueling infrastructure costs, vehicle and depreciation allowances under the federal tax code and concluded that after considering all these factors, battery-electric and fuel cell trucks will be cost competitive with internal combustion engine powered trucks within the 2025 to 2030 timeframe, even without accounting for available vouchers, rebates, or grants, that could reduce the estimated TCOs for ZEV trucks.

CARB's assessment relied on a wide range of tools and evidence, including EMFAC – a CARB developed computer model capable of modelling vehicle duty cycles, vehicle accrual rates, lifetimes, and annual mileages traveled,[7] new vehicle prices as specified from manufacturer's websites and online truck marketplaces,[8] EPA formal rulemaking actions,[9] Bloomberg price projections for battery prices,[10] California Energy Commission (CEC) projections of diesel and gasoline fuel costs,[11] CARB's Battery-Electric Truck and Bus Charging Calculator,[12] CEC's projections of electricity prices from 2018-2030,[13] a report issued by a coalition of hydrogen stakeholders addressing hydrogen fuel costs,[14] CARB's Low Carbon Fuel Regulation Credit Price Calculator,[15] a host of studies assessing vehicle maintenance costs,[16] vehicle registration fees assessed by the California Department of Motor Vehicles,[17] an International Council on Clean Transportation paper estimating electric vehicle charger costs,[18]and Internal Revenue Service Publication 946 regarding allowable depreciation of property, such as trucks.[19] This information and evidence, and staff's informed conclusions based on that information clearly constitutes substantial evidence supporting the TCO document.

The commenter's contention that the TCO document is flawed simply because some of the information in the document is not consistent with information contained in an exhibit to the commenter's letter, and because the TCO document does not incorporate data concerning a demonstration project involving heavy-duty ZEVs at the Foothill Transit district is meritless; the determination of whether a document or agency rulemaking is supported by substantial evidence is based on the entirety of the record, considering both the information supporting

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[6] 44 Cal.App.4th 634, 651 (1996).
[7] Appendix G to ISOR, p. G-8
[8] Id. at G-10
[9] Id. at G-11
[10] Id. at G-12
[11] Id. at G-15
[12] Id. at G-16
[13] Id. at G-17
[14] Id. at G-18
[15] Id. at G-21
[16] Id. at G-22
[17] Id. at G-25 to G-26
[18] Id. at G-27
[19] Id. at G-31

an agency's determination as well as the information detracting from that determination. *Mayes v. Massanari*, 276 F.3d 453, 458-459 (9th Cir. 2001); *Burnette Foods, Inc. v. United States Dept. of Agriculture*, 920 F.3d 461, 469 (6th Cir. 2019) (if substantial evidence supporting an agency's conclusion exists, a court must affirm that conclusion, even if substantial evidence supports an opposing conclusion.)

As discussed below, CARB disagrees that the information presented in the exhibit is credible, as the commenter's claims ignore or misstate the analysis performed in the ACF SRIA, ISOR, and Appendix G to the ACF ISOR. The commenter's assertions are inaccurate for the following reasons:

1. Commenter states the assumptions used to support TCO analysis are overly optimistic and do not reflect real-world data collected from the National Renewable Energy Laboratory over the past eight years of bus demonstrations. Commenter requests that we instead validate the assumptions used in the TCO document against data from real world pilot projects and demonstrations. This statement does not accurately capture the methodology staff used to prepare the economic analysis. Information on infrastructure costs, fuel economy, maintenance costs, midlife replacements, and other cost inputs use data from real-world deployments where available. These sources provide a reasonable estimate of real-world costs given these early-stage demonstrations.

   However, other costs expected to change in the future such as vehicle prices and fuel costs are estimated using projections from third-party sources which are cited as part of the rulemaking record. Such projections are necessary as costs today do not represent what costs will be in the future. Vehicle prices are expected to decline based on reductions in direct component costs, indirect costs associated with manufacturing new technologies, and emerging economies of scale. And contrary to the commenter's claim, we have seen significant reductions in light-duty ZEV prices and these ZEVs are available at comparable prices to combustion-powered vehicles. At the same time, the price of combustion-powered vehicles is expected to increase over the course of the decade due to regulations such as the Greenhouse Gas Phase 2 Regulation, HD Omnibus Regulation, and federal CTP. As a result, using the price of vehicles today as an estimate for future costs as the commenter suggests will guarantee an inaccurate analysis. Commenter's request is, in effect, asking CARB to use the highest cost estimates for ZEVs wherever possible and the lowest possible cost estimates for combustion-powered vehicles and does not lead to an accurate cost analysis and instead would result in an analysis designed to favor combustion-powered vehicles.
   a. Similarly, commenter's claim that the NREL study shows higher downtime for ZE buses does not show that future ZE truck deployments will have higher downtime. Manufacturers take lessons from programs such as the Foothill Transit demonstration or ZE truck pilot projects and use them to improve their products as they release fully commercial products. Assuming that commercial products will suffer the same early-market hiccups as demonstrations is baseless and unfounded. Furthermore, the ACT regulation contains requirements that manufacturers must certify their vehicles to the Zero-Emission Powertrain Certification to receive credit. This new certification procedure ensures a

minimum level of performance and capability from all ZEVs and helps to mitigate downtime concerns.

b. This statement also ignores the body of third-party work cited within the rulemaking record. Citing one study comparing ICE vehicles and ZEVs while ignoring numerous other studies is overly myopic, and commenter does not explain why past data on ZE bus deployments are applicable to future ZE truck deployments.
c. Staff also notes the commenter has failed to cite any of the documents referenced regarding the NREL study of Foothill Transit.
d. For more information on staff's estimates of future vehicle prices, see responses in section "Zero-Emissions Technology – Zero-Emission Vehicle Prices" in "Zero-Emissions Vehicle Technology Issues" of the "45-Day Comment Period and First Board Hearing Public Comments with Agency Responses." Commenter's claim regarding battery-electric refuse truck prices does not represent a credible estimate for regulatory purposes as it fails to state basic information such as the date of the price quote, prices of other manufacturers, the price of the baseline vehicle, or how these prices will shift in response to increased production due to the ACT and ACF regulations.

2. Commenter makes a baseless and deliberately misleading comparison of CNG vehicle fuel prices versus electric vehicle fuel prices. Commenter's statement that natural gas vehicles are five to six times lower cost on a diesel gallon equivalent is not factoring in the efficiencies of battery-electric vehicles and the inefficiencies of natural gas vehicles. Electric vehicles are significantly more efficient than diesel-powered vehicles and use significantly less energy to travel the same distance. This difference can be estimated as a factor of 5 times more efficient per the LCFS regulation's energy economy ratios. Conversely, natural gas engines are less efficient compared to diesel vehicles as spark-ignition engines operating on the Otto cycle are inherently less efficient than compression-ignition engines operating on the Diesel cycle. The LCFS regulation's energy economy ratio is 0.9 for natural gas trucks while the energy economy ratio for diesel trucks is 1.0. As a result, while natural gas costs less per unit of energy, the same amount of energy can be used to travel significantly further in a BEV versus a NG vehicle and the cost per mile is near parity rather than the five to six times presented by the commenter. Given this information, the commenter's claim is an inaccurate representation of facts and is not credible.
3. Commenter states if the TCO of ZE trucks was better than ICE vehicles, no regulation would be necessary as the laws of supply-and-demand would dictate fleets would move to ZE technology as fast as possible. This information is inaccurate as it fails to identify or address the numerous issues that would delay a transition to ZE technology. CARB staff outlined numerous reasons which may delay a transition to ZEVs in spite of their lower TCO in Chapter VII of the ACF ISOR, pg. 200-202. These reasons include higher upfront costs, inertia of operating combustion-powered vehicles, lack of data, among other reasons. There are several reasons why fleets even today do not pursue lower cost options available, so the claim that "basic laws of supply and demand" are sufficient to enable a zero-emission transition is not credible.
4. Commenter states "…the baseline is a figment of CARB staff imagination and not reflective of what manufacturers indicated they can (or will) produce." This statement is inaccurate as it directly contradicts statements from the manufacturers themselves.

Manufacturers have repeatedly claimed they will comply with CARB regulations and CARB is not aware of any manufacturer indicating they are unable to meet the ACT regulation's requirements (which is modeled in the baseline for the ACF regulation). Further, numerous manufacturers have made public statements regarding expected estimates of ZE sales beyond the ACT regulation's requirements. For example, Volvo Trucks stated a 50 percent ZE target in 2030 globally with Daimler committing to 60 percent ZE by 2030 and 100 percent ZE by 2039; and Navistar committed to 50 percent ZE by 2030 and 100 percent ZE by 2040.[20] It is wrong to state that the ACT regulation's requirements cannot be met by manufacturers when those same manufacturers are making public claims that they will sell a higher percentage of sales as ZEVs nationwide than the ACT regulation requires in California.

CARB further notes that even if that information was deemed credible and constituted substantial evidence, the TCO document would still be supported by substantial evidence, based on the entirety of the record, since, as demonstrated above, that document includes credible information, studies, computer models, other evidence, and staff's informed conclusions.

C. Technical Feasibility Issues

1. CARB Must Consider Grid Reliability Impacts from the Electrification of the MD/HD Transportation Sector

Comment [45d-259] (Valero): "And with increasing reliance on solar and wind generation, California also faces reliability hazards due to power inverters that serve solar and wind farms not being able to 'ride-through' short-term disturbances, as occurred in California on four separate occasions between June and August 2021. CARB has failed to include any assessment of these reliability challenges, despite its legal duty to do so."

Response: No change was made in response to this comment.

CARB disagrees with the commenters' contention that it did not meet its obligations under the law to evaluate and assess the potential impacts of the ACF regulation on the electrical grid, based on the totality of the evidence in the record before it. Please refer to Master Response 1 and response to comments 270-10 on the CEQA Draft Environmental Assessment.

2. CARB's Proposal Will Impact Interstate Transport (cost to consumers of increased prices of goods transported by trucks).

Comment [45d-259] (Valero): "By imposing restriction on freight vehicles travelling across state lines, the Advanced Clean Fleets regulation would restrict the movement of goods in the United States. Road freight plays a vital role in the economic growth of our country and is an important and ongoing component of the transportation planning processes in the United

[20] Navistar, Vision And Strategy (web link: https://www.navistar.com/about-us/vision-strategy. last accessed February 2023).

States as the interstate transport of goods impacts the national economy and qualify-of-life standards."

Response: No change was made in response to this comment. As a threshold matter, the commenter mischaracterizes the ACF regulation, because that regulation does not restrict out-of-state trucks from travelling into or through California. Rather, the ACT regulation establishes requirements applicable to specified fleet operators that own, operate, or direct the operation of specified vehicles in California and that also meet other specified criteria. Consequently, no response is required. Notwithstanding that response, to the extent the comments assert that the ACF regulation impermissibly burdens interstate commerce, see the Agency Response to Comment V.B.

D. Consideration of Alternatives

Comment [45d-280] (NGV America): The APA requires state agencies to evaluate and disclose the economic impacts of proposed regulations and adopt the most cost-effective regulatory measures to achieve goals. … The proposed rule therefore fails to comply with … APA requirements because it does not take adequate steps to ameliorate negative environmental consequences and it ignores available alternative regulatory options that would address these shortcomings."

Response: No change was made in response to this comment. CARB disagrees with the commenter. CARB conducted robust economic and environmental analyses in accordance with its obligations in the Administrative Procedure Act (APA), CEQA, and the Health and Safety Code, and those analyses are amply supported by substantial evidence in the record. CARB's analyses of numerous regulatory options are set forth in the ISOR, at pp. 235- 270. CARB assessed the economic impacts of the ACF regulation based on the totality of the evidence in the record before it, and those assessments are contained in the SRIA, Economic Impact Statement, and supporting documents and appendices.

1. Consideration of Specific Alternatives

Comment [45d-290] (WJ):

"The Legislature requires state agencies, including CARB, to avoid unnecessary or unduly burdensome regulation. To this end, the Legislature requires agencies to analyze alternatives to the proposed action. 'Reasonable alternatives to be considered include, but are not limited to, alternatives that are proposed as less burdensome and equally effective in achieving the purposes of the regulation in a manner that ensures full compliance with the authorizing statute or other law being implemented or made specific by the proposed regulation.' (Govt. Code, § 11346.2, subd. (b)(4)(A).)

CARB may not adopt regulations unless it has determined no alternative to its proposal would be 'as effective and less burdensome to affected private persons than the proposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law.' (Govt. Code, § 11346.5, subd. (a)(13).) Likewise, in the initial statement of reasons, CARB must affirm and explain, with

'supporting information,' that 'no alternative' it has considered 'would be more effective and less burdensome to affected private persons than the adopted regulation, or would be more cost effective to affected private persons and equally effective' in meeting the proposal's legislative objective. (Govt. Code, § 11346.9, subd. (a)(4) [emphasis added].)

Here, CARB has failed to adequately consider numerous alternatives to the ACF Regulation, including alternatives proposed by EMA (Match Advanced Clean Trucks and Advanced Clean Fleets Zero-Emission Vehicle Deployments Exactly), CTA (Exempt Group 2 and 3 Vehicles and Extend Timeline Six Years to Purchase Group 1 Zero-Emission Vehicles), and WSTA (Credit for Zero-Emission or Natural Gas Vehicles). (ISOR at 255-57, 261-62.)

Each of the above alternatives would achieve CARB's objective of reducing criteria pollutant and GHG emissions. They would also be far 'less burdensome to affected private persons than the proposed action,' and would also 'be more cost effective to affected private persons and equally effective' in meeting the proposal's legislative objective.' (Govt. Code, §§ 11346.5, subd. (a)(13), 11346.9, subd. (a)(4).)

As a result of the foregoing, CARB should decline to adopt the ACF Regulation and should instead seriously consider other less burdensome alternatives."

Response: No change was made in response to this comment. The commenter asserts CARB has not adequately considered alternatives to the ACF regulation, but has not specified how or why CARB's analysis for rejecting those alternatives was arbitrary or capricious, and accordingly this comment does not require a response.

Notwithstanding that response, CARB did consider a number of proposed alternatives to the ACF regulation, including each of the alternatives specifically mentioned by the commenter, and clearly set forth its bases for determining that each of those alternatives would not be "as effective and less burdensome to affected private persons than the proposed action, or would be more cost effective to affected private persons and equally effective in implementing the statutory policy or other provision of law." pursuant to Govt. Code, § 11346.5(a)(13).

CARB determined that EMA's proposed alternative (Match Advanced Clean Trucks and Advanced Clean Fleets Exactly) would ultimately delay the market availability and deployment of ZEVs, does not incentivize manufacturers to produce more ZEVs than NZEVs compared to what is already required under the ACT regulation, and therefore rejected this alternative because "compared to the proposed ACF regulation, it fails at meeting all project goals mainly due to the lack of medium- and heavy-duty ZEV deployment, delay in development of depot infrastructure, and lack of market certainty." ISOR at p. 255-256.

CARB determined that CTA's proposed alternative (Exempt Group 2 and 3 Vehicles and Extend Timeline Six Years to Purchase Group 1 Zero-Emission Vehicles) would not provide the market certainty nor the infrastructure investments needed to develop a charging or hydrogen fueling network for a 100 percent transition to ZEVs, would "hinder infrastructure build-out and is contrary to current recommended ZEV deployment strategies that show electrification of [Group 1] vehicles in last mile delivery applications is feasible today," would rely on incentive funding for Group 2 and Group 3 vehicles, but such incentive funding is not an effective and sustainable means to ensure long-term transition to ZEVs, "would impact

California businesses unequally", and allow high emitting trucks to continue operating in overburdened communities, could incentivize fleet owners "to change their operating characteristics to be excluded from the requirements," and would additionally "achieve much fewer air quality benefits than the proposed ACF regulation and would not be as effective at advancing the adoption of medium- and heavy-duty ZE technologies and develop a self-sustaining ZEV market, which is a cornerstone of California's long-term transportation strategy to reduce localized pollution," and would "not result in any additional ZEV deployments or would result in significantly fewer ZEV deployments than the proposed ACF regulation." ISOR at pp. 256-257. CARB consequently determined this alternative would not be more effective than the ACF regulation in fulfilling the purpose for which the ACF regulation was proposed or would not be as effective and less burdensome than the ACF regulation. ISOR at p. 257.

CARB determined that WSTA's proposed alternative (Credit for Zero-Emission or Natural Gas Vehicles) would not achieve any additional reductions of NOx emissions, (beyond baseline) would potentially also result in less reductions of PM or GHG emissions, and would not meet, or would be less effective in meeting all program objectives as compared to the ACF regulation. ISOR at pp. 261-262.

CARB also notes that the commenter incorrectly states that Govt. Code § 11346.9(a)(4) specifies requirements applicable to the initial statement of reasons - in fact, that provision specifies requirements applicable to the final statement of reasons. Govt. Code § 11346.9(a).

E. Peer Review

Comment [45d-290] (WJ): "The proposed regulation contains numerous 'scientific portions' that must be subjected to external peer review pursuant to § 50074 because they 'are premised upon, or derived from, empirical data or other scientific findings, conclusions, or assumptions establishing a regulatory level, standard, or other requirement for the protection of public health or the environment.' (Id., subd. (a)(2).)

These "scientific portions" include, but are not limited to:

- The total cost of ownership of ZEVs, including the analysis in Appendix G to the ISOR.
- The alleged emissions benefits of the ACF Regulation as discussed in Appendix F of the ISOR, as well as the potential negative criteria pollutant and GHG emissions impacts associated with the new construction and infrastructure required to accommodate demand for new ZEVs.
- The assessment of the ACF Regulation's impact on the California energy grid and grid reliability.

As such, CARB must submit these portions of the rule, 'along with a statement of the scientific findings, conclusions, and assumptions on which [they] are based and the supporting scientific data, studies, and other appropriate materials, to the external scientific peer review entity for its evaluation.' (Id. at subd. (d)(2).) Because there is no evidence of CARB obtaining peer review for any of the above scientific portions of the ACF Regulation, CARB may not approve the ACF Regulation on October 27, 2022."

Response: No change was made in response to this comment.

The regulatory requirements in the ACF are based on information that does not qualify as "scientific" for purposes of Health & Safety Code section 57004. Those requirements are primarily based on the existence of vehicle and engine technologies, which are simple facts not warranting peer review, or on expectations regarding developments in or changes to existing technologies, which likewise involve no new scientific assumptions or findings that would warrant peer review.

The three elements identified by the commenter are not the bases for the regulatory requirements but, rather, elements of the analysis CARB prepared as to the potential impacts of those requirements. On its face, Section 57004 does not apply to those elements. But even if it did, these elements do not qualify as "scientific portions" because none of them involved new scientific findings, conclusions, or assumptions. Agencies do not engage in new "science" every time they estimate the costs and benefits of emission control technologies, the amount of electricity ZEVs will draw from the grid, or how the electric grid (and those that manage it) might respond to that amount of electricity.

CARB's determination that this rulemaking action is exempted from H&SC 57004 is consistent with guidance provided by the California Environmental Protection Agency that expressly excludes work product regarding "[t]echnical performance related to new control standards or manufacturing technologies, such as emission standards for new motor vehicles …. It is not the intent of Health & Safety Code section 57004 to review engineering data to support the technical feasibility of these standards or technologies."[21]

F. CARB Should Delay Implementation of the ACF Regulation

Comment [009-OT1] (Renschler): The commenter requests that CARB delay the implementation of the ACF regulation for governmental fleets because OAL will not be able to approve the regulation before the regulation's first requirements take effect on January 1, 2024.

Response: No change was made in response to this comment. CARB projects that it will be able to submit this rulemaking action to the Office of Administrative Law (OAL) shortly after the Board considers approving the adoption of the ACF regulation in April, which will provide OAL more than enough time to review and approve the Regulation before January 1, 2024. See e.g., Govt. Code § 11349.3(a) (specifying that OAL shall either approve or disapprove a regulation within 30 days of the date that regulation has been submitted to OAL for review).

G. The ACF Regulation is Too Broad in Scope

Comment [45d-104] (AGC, San Diego): The commenter states that the ACF regulation is too broad in scope – it requires the Public Utilties Commission (PUC), private utility companies, and the Department of Toxic Substance Control to take actions, and should therefore be enacted by multiple agencies or the legislature, not just CARB.

[21] California Environmental Protection Agency, Policy and Guiding Principles for External Scientific Peer Review (1998), page 7.

Response: No change was made in response to this comment. CARB disagrees that this regulation is too broad in scope – it establishes well-defined requirements on specified fleets, and primarily requires those fleets to acquire increasing numbers of zero emission medium- and heavy-duty vehicles by specified timelines, to retire specified existing trucks after those trucks reach specified useful lives, and to report specified information to CARB.

CARB acknowledges that the successful implementation of the ACF regulation is also dependent on the actions of other state agencies, including the Public Utilities Commission and the California Energy Commission, to ensure California's electrical grid and other fueling infrastructure will support the ZEV vehicles required by this regulation, and that the Department of Toxic Substance Control is authorized to regulate actions of regulated entities relating to certain impacts of the regulation, such as the proper disposal of batteries used to power BEVs. Notwithstanding those factors, it is clear that CARB is authorized under state law to promulgate this regulation. See the Agency Response to Comment I.A, which explains that California's legislature expressly delegated CARB the authority to enact measures needed to protect the public health and welfare from the harmful emissions generated from motor vehicles.

Comment [45d-145] (Hendrickson): "I oppose all regulation directed by CARB. Unelected bureaucrats should not be allowed to exercise such authority. This only belongs to the legislature."

Comment [15d-001] (Hendrickson): "The State of California is overrun with laws, rules, and regulations. It is time to stop so many rules. I oppose CARB making such rules and regulations – such regulations are the purview of the state legislature, not bureaucrats.

Response: No change was made in response to this comment. This comment is not specifically directed at either the regulation or to the procedures followed by CARB in proposing or adopting the regulation, and accordingly does not require a response. Notwithstanding that response, see Agency Response to Comment I.A., which explains that California's legislature has expressly delegated to CARB the authority to enact measures such as the ACF regulation, needed to protect the public health and welfare from the harmful emissions generated from motor vehicles.

H. The Regulation Sets Prescriptive Requirements, instead of Performance Standards

Comment [45d-270] (WSPA): "Under Government Code § 11346.2(b)(4)(A), when CARB proposes a regulation that would mandate the use of specific technologies or equipment, or prescribe specific actions or procedures, it must consider performance standards as an alternative. The ACF proposal includes a 100% ZEV sales mandate for new medium- and heavy-duty vehicles beginning in the 2040 model year and beyond. This is not a performance standard, it is a technology mandate."

Comment [45d-280] (NGV America): The ACF regulation "mandates specific technological solutions available for fleet purchases."

Comment [45d-349] (Alliance for Vehicle Efficiency): "AVE consistently urges regulators develop technology-neutral standards. Standards based on performance are more likely to

encourage broader investments into innovative technologies. A ZEV mandate discourages manufacturers from investing in new internal combustion engine (ICE) technologies to meet future standards. … AVE urges CARB to adopt a strategy that fosters all types of automotive innovation to support environmental gains and not rely on technology mandates.

The Proposal's definition of NZEVs, however, picks technology winners and losers instead of focusing on the overall environmental gains associates with various propulsion systems. Such an approach will likely narrow the options fleet owners could employ to comply [with the ACF regulation."

Response: No change was made in response to these comments. CARB disagrees that the ACF regulation is a prescriptive standard, defined as "a regulation that specifies the sole means of compliance with a performance standard by specific actions, measurements, or other quantifiable means," (Govt. Code § 11342.590); a performance standard is defined as "a regulation that describes an objective with the criteria stated for achieving the objective." (Govt. Code § 11342.570).

As explained in the ISOR, the ACF regulation does not prescribe any specific technology or any equipment – "rather, it allows regulated entities to acquire affected categories of any medium- and heavy-duty vehicles that have demonstrated that they emit zero emissions of criteria or GHG emissions; the regulation does not specify how such vehicles must comply with these standards. Currently battery-electric vehicle technology (BEV and PHEV) and fuel cell electric vehicle (FCEV) technologies have demonstrated the capability of meeting the proposed performance standards; however, the regulation does not preclude regulated entities from utilizing any other technology that meets the proposed performance standards. If entities elect to utilize BEV or FCEV technologies, the proposed ACF regulation also establishes requirements to ensure that regulated entities actually purchase and use those technologies, rather than vehicles that emit higher levels of emissions." ISOR, pp. 269-270. The ACF regulation "encourages innovation by allowing manufacturers and fleet owners to determine the most cost-effective means of compliance given their business model or operational needs." *Id.* at p. 270.

Moreover, to the extent the criteria established by the ACF regulation are themselves standards, they similarly establish performance-based criteria and do not specify the sole means of compliance.

In any event, CARB has met the requirements for adopting prescriptive standards, because any less prescriptive requirements than the requirements specified in the ACF regulation in terms of the emissions limits and requirements for ZEV or NZEV purchases would erode and impair the ACF regulation's ability to secure the emissions reductions needed for meeting California's public health and climate goals and State and federal air quality standards because less prescriptive measures would allow, by omission, additional flexibilities on technology, valuation, fleet mixing, and assurance measures that would not achieve the same magnitude of emissions reductions or support for the nascent ZEV market. Furthermore, to the extent the ACF regulation is determined to specify a sole means of compliance through specific actions, measures, or other quantifiable means, this means of compliance is necessary to accurately confirm compliance with the requirements to ensure that motor vehicle emissions are permanently reduced.

I. The Public Notice does not comply with Section 11346.5(a)(9) of the Government Code.

Comment [45d-290] (WJ): The commenter alleges the Public Notice for the ACF regulation does not comply with Section 11346.5(a)(9) of the Government Code. The commenter alleges it submitted evidence to CARB prior to CARB's issuance of the Notice of Public Hearing that allegedly "demonstrated CARB's projected costs of the ACF Regulation on regulated parties was far too low", and asserts CARB failed to address those issues in CARB's total cost of ownership (TCO) document.

Response: No change was made in response to this comment. California Govt. Code § 11346.5(a)(9) specifies that an agency's notice of proposed adoption, amendment, or repeal of a regulation must include, in pertinent part, a "description of all cost impacts, known to the agency at the time of the notice of proposed action is submitted to the office, that a representative private person or business would necessarily incur in reasonable compliance with the proposed action." This provision does not however, extend to information that the agency determines is speculative or not credible, because an agency's declaration of its initial determination regarding the anticipated economic impact of a proposed regulation must be based on facts, evidence, documents, and other evidence, and not mere speculative belief. *California Assn of Medical Products Suppliers v. Maxwell-Jolly*, 199 Cal.App.4th 286, 305-306 (App. 1st Dist. 2011). As demonstrated below, CARB staff elected to disregard the information referenced by the commenter because CARB staff determined that information was not sufficiently credible, based on other information in the record, and based on staff's knowledge and informed reasoning. Notably, courts have determined that agencies do not need to exhaustively examine their initial determinations of economic impacts, 199 Cal. App. 4th at 307, and that Govt Code § 11346.5(c) expressly provides that a regulation will not be invalidated if an agency has substantially complied with the requirements associated with the contents of the notice or summary of cost estimates.

Staff reviewed the referenced information and determined it was not credible for the purpose of the regulation's economic analysis primarily because it was based on current prices. But as history and economic literature demonstrate, costs today do not represent what costs will be in the future. Vehicle prices are expected to decline based on reductions in direct component costs, indirect costs associated with manufacturing new technologies, and emerging economies of scale. Notably, light-duty ZEV prices have declined over time for these reasons, and these ZEVs are available at comparable prices to combustion-powered vehicles. Moreover, the price of combustion-powered vehicles is expected to increase over the course of the decade due to regulations such as the Greenhouse Gas Phase 2 Regulation, HD Omnibus Regulation, and federal CTP. The referenced information is thus inaccurate as it was premised on today's prices and fails to address the number of factors that will change vehicle prices in the future. Commenter's request is, in effect, asking CARB to use the highest cost estimates for ZEVs wherever possible and the lowest cost possible for combustion-powered vehicles and does not lead to an accurate cost analysis and instead would result in an analysis designed to favor combustion-powered vehicles.

J. The ACF Regulation Could Result in Inconsistencies With Regulations Promulgated by Local Air Pollution Control Districts

Comment [45d-291] (SCPPA, NCPA, CMUA): CARB should prioritize working with local air quality management districts (AQMDs) to ensure the proposed ACF rule does not result in inconsistencies with regulations promulgated by AQMDs. The commenters specifically mention South Coast Air Quality Management (SCAQMD) District Rule 1196[22], and state that the technical feasibility exemption provision of that rule, in conjunction with the ACF purchase and exemption provisions, could "significantly extend budgeting and procurement deadlines, which could result in public fleets missing manufacturer cutoff dates."

Response: No change was made in response to this comment. CARB is committed to working with AQMDs to discuss and address any potential inconsistencies that may arise from AQMD rules and the ACF regulation. However, CARB has no reason to believe such inconsistencies will arise. Specifically, CARB has no reason to believe that the technical feasibility exemptions of SCAQMD District Rule 1196 would, in conjunction with the ZEV unavailability provisions of the ACF regulation, cause fleets to extend budgeting or procurement deadlines.

The SCAQMD initially adopted District Rule 1196 on October 20, 2000. That rule is an element of SCAQMD's fleet vehicle rules, deemed the "Clean Fleets Program" intended to reduce public exposure to toxic air contaminants and to improve air quality by requiring specified vehicle fleets to purchase alternative-fueled, dual fueled, or gasoline powered heavy-duty vehicles when such fleets replace or add heavy-duty vehicles to their fleets.[23] Alternative-fueled vehicles include heavy-duty vehicles or engines powered by, in pertinent part, electricity, fuel cells, and "other advanced technologies that do not rely on diesel fuel," which have been certified by CARB.[24]

Rule 1196 allows fleets to purchase diesel-fueled heavy-duty vehicles powered by low-sulfur diesel and equipped with CARB certified control devices, provided fleets can demonstrate that alternative-fueled vehicles needed to meet the fleet operator's needs are not commercially available or cannot be used in a specific application, provided the fleet requests and receives SCAQMD approval of a "Technical Infeasibility Certification Request."[25]

The ACF regulation will expand the availability of ZEVs in all categories of heavy-duty vehicles, and accordingly reduce the need for fleets to request Technical Infeasibility Certification Requests from SCAQMD under District Rule 1196.

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[22] This rule is still in effect after the EMA v SCAQMD (541 U.S. 246 (2004)) decision. The EMA court remanded the case to the lower courts to consider, among other things, whether certain of SCAQMD's fleet rules could be characterized as internal state purchasing requirements, and if so, whether a different standard of preemption applied. The district court determined that SCAQMD rule 1196, as applied to state and local governments, fell within the market participant doctrine and therefore are beyond the scope of CAA section 209. The Court of Appeals for the Ninth Circuit affirmed the district court's judgment. 498 F.3d 1031, 1050 (9th Cir. 2007).

[23] South Coast Air Quality Management District, Staff Report, Proposed Rule 1196 – Clean On-Road Heavy-Duty Public Fleet Vehicles, SR1196-1 (2000). Available at: https://www.aqmd.gov/docs/default-source/Regulations/Fleet-Rules/rule-1196-staff-report.pdf?sfvrsn=2; Rule 1196(a); available at: https://www.aqmd.gov/docs/default-source/Regulations/Fleet-Rules/r1196.pdf?sfvrsn=2

[24] District Rule 1196(c)(1).

[25] District Rule 1196(e)(1). Staff Report, Proposed Rule 1196, SR1196-10.

The ACF regulation similarly allows fleets not to procure ZEVs if they can demonstrate that a needed vehicle configuration is not available as a ZEV or near-zero ZEV configuration;[26] CARB's Executive Officer will notify fleets within 45 calendar days from the date a complete exemption request is received whether the request is approved or denied.[27] District Rule 1196 similarly provides that SCAQMD's Executive Officer will approve or disapprove an infeasibility certification request within 45 calendar days of receipt.[28]

In light of the facts that the ACF regulation will both reduce the need for fleets to seek Technical Infeasibility Certification Requests, and that the timelines to obtain CARB and SCAQMD decisions for exemptions are similar, CARB does not anticipate that the ACF regulation would unduly delay the ability of fleets to obtain decisions from SCAQMD for Technical Infeasibility Certification Requests, pursuant to District Rule 1196 or otherwise complicate or delay fleet budgeting or procurement for fleets subject to both regulations.

II. CARB's Authority to Promulgate The ACF Regulation

A. CARB's Authority to Promulgate The ACF Regulation

Comment [45d-334] (WSTA): "Many WSTA members operate trucks within the jurisdiction of the South Coast Air Quality Management District. From approximately 1999 through 2005, that local agency attempted to restrict the purchase of heavy-duty diesel trucks and engines by fleet operators. The local rules were challenged, and the Supreme Court of the United States ruled on the matter in 2004. As requested in our comment letters in 2021, CARB must identify its legal authority to prevent fleet owners from purchasing internal combustion engines. [*See Engine Mfrs. Assn. v. South Coast Air Quality Management Dist.* (02-1343) 541 U.S. 246 (2004) 309 f.3d 550]"

Response: No change was made in response to this comment.

As a threshold matter, as discussed in Agency Response to Comment I.A, the ACF regulation is needed to address the significant harms posed from the significant quantities of the criteria air pollutants, toxic air contaminants, and greenhouse gases that are emitted from the vehicles affected by the ACF regulation, and such pollutants threaten the public health and welfare of Californians, impede California's ability to attain compliance with federal ambient air quality standards, and contribute to climate-change induced harms that threaten the State. As also set forth in that response, CARB has been granted broad and extensive authority under the Health and Safety Code (HSC) to adopt the ACF regulation in order to address the above-mentioned harms.

Engine Mfrs. Assn. v. South Coast Air Quality Management Dist., 541 U.S. 246 (2004) (EMA) does not preclude CARB from exercising this authority of from establishing regulations, such as the ACF regulation, that impose obligations on fleet owners or operators to only purchase vehicles or engines that meet specified emissions standards.

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[26] 13 CCR § 2013.1(d).
[27] 13 CCR § 2013.1(d)(2)(H)
[28] District Rule 1196€.

The *EMA* court *did not hold* that any and all fleet requirements are "standards" requiring preemption waivers under CAA § 209(b) or 209(e), much less that such waivers could not be granted for fleet requirements. *See also* Agency Response to Comment III.A.

Comment [018-WT2] [138-OT2] (Procopio): Charter is concerned that the proposed ACF regulation would be inconsistent with CARB's requirement to adopt regulations that are "technologically feasible and cost-effective" (Health and Safety Code § 38560). Charter believes the ACF regulation, as proposed, is inconsistent with these statutorily mandated principles and may violate Gov. Code § 11342.2 and 11349, which require that adopted regulations not be in conflict with or contradictory to existing statutes, court decisions, or other provisions of law.

Response: No change was made in response to this comment. The ACF regulation is entirely consistent with Health and Safety Code § 38560 because it achieves the maximum technologically feasible and cost-effective reductions of greenhouse gases and other emissions from medium-duty and heavy-duty trucks and light-duty package delivery vehicles, which constitute sources or categories of sources of such emissions. *See* Agency Response to Comments I.B, I.C., and III.A.1. In addition, CARB disagrees with the assertion that regulation is not technologically feasible or cost-effective, as discussed in more detail the ACF ISOR and in sections "Zero-Emission Vehicle Technology Issues" and "Cost Comments" of the "45-Day Comment Period and First Board Hearing Public Comments with Agency Responses."

CARB disagrees that the ACF regulation is inconsistent with Govt. Code §§ 11342.2 and 11349. The commenter broadly asserts that ACF regulation "may violate" these provisions but does not specify in what manner or respect those asserted violations arise, or identify any state or federal statutes or regulations that serve the same purpose as the ACF regulation. *See* Agency Response to Comment I.A. and ISOR at p. 270.

B. Authority to Require Fleets to Install Infrastructure (Hexagon, NGV America)

Comment [45d-174] (Hexagon): "The ACF implicitly mandates that fleets install infrastructure. As the ISOR and regulation is currently stated, it presumes that CARB has the legal authority to mandate fleets install fueling infrastructure; that fleets have the necessary footprint to accommodate fueling/charging infrastructure; and that the nearby electrical infrastructure can support medium- and heavy-duty trucks congregated at these locations. The rule accommodates delays but does not set out the legal authority that CARB is basing its presumed authority to mandate that fleets install fueling."

Comment [45d-280] (NGV America): "This rulemaking also is unprecedented because it implicitly requires private fleets to install fueling infrastructure while ignoring a host of relevant issues such as whether fleets have the required footprint to accommodate such necessary fueling infrastructure. … And as noted above, this, too, will presumably require a waiver from EPA, and section 209."

Comment [45d-253] (Coalition of 42 Stakeholders): The commenters state that the ACF requirements for State and local government fleets establish an unfunded mandate to build the required infrastructure.

Response: No change was made in response to these comments.

The ACF regulation neither expressly nor implicitly mandates that affected fleets install infrastructure needed to fuel the affected vehicles, but instead rationally presumes that affected fleets will determine which refueling strategy best accommodates their business structure, operational needs, and economic considerations. For example, one fleet may elect to rely on depot charging, which requires installation of charging equipment at its parking facilities, while another fleet may elect to rely on public or other off-site charging provided by a third-party. Therefore, this comment is not specifically directed to an element of the ACF regulation or to the procedures followed by CARB in proposing or adopting the ACF regulation and does not require a response.

C. Authority to Establish Applicability of Emission Standards/Purchase Mandates Based on Sizes of Affected Fleets

Comment [45d-282] (CTA and ATA): "It's also questionable whether the legal and legislative history of CARB's authority to set emission standards would allow the agency to selectively apply purchase mandates by fleet size."

Comment [15d-33] (Caterpillar Dealers): "Legality of singling out high priority private fleets with disregard for the business type or operational constraints in the use of electric vehicles for our industry and the industries we serve. This not only puts our companies at a competitive disadvantage, but it also restrains us from the business trades we are currently serving."

"[W]e question the legality of this approach to single out large companies like ours that service the construction, agricultural, military and critical services businesses simply based upon revenue or number of vehicles. Doing so will effectively take away our ability to compete in renting to these businesses and in servicing their equipment while other companies that do not meet the high priority fleet requirements will still be allowed to rent and service this same equipment using diesel fueled vehicles. In all likelihood this will create more emissions as the fleets that do not meet the high priority fleet definition will grow to fill the void with diesel trucks while still staying under the threshold. This regulation will put a restraint of trade on our business due to the fact our company must convert to electric, whereas so many companies we compete with that are not considered "large" (but by no means are small companies) will continue to offer diesel rental vehicles to the construction and agricultural industries."

Response: No change was made to the regulation in response to these comments. The commenters do not explain why they believe CARB may lack authority to set emission standards based on fleet size, and the comments therefore do not require a response. Additionally, comment [15d-33] is outside the scope of the 15 day changes. In any event, CARB has been granted broad and extensive authority under the Health and Safety Code (HSC) to adopt the Proposed ACF regulation, which necessarily includes the authority to decide which entities to regulate. See Agency Response to Comment I.A. For rationale, see ISOR Appendix H-2, page H-2-2.

D. Authority to Establish Common Ownership and Control Concepts

Comment [45d-334] [15d-160] (WSTA): The commenter states CARB must identify the legal authority to compel two businesses to be treated as one regulated party under ACF, as related to the common ownership and control, or controlling party requirements.

Response: No change was made to the regulation in response to this comment. As discussed in the Agency Response to Comment I.A., CARB has been granted broad and extensive authority under the Health and Safety Code to address the significant harms posed from the significant quantities of harmful criteria pollutants, toxic air contaminants, and greenhouse gases emitted from the vehicles affected by the ACF regulation that threaten the public health and welfare of Californians, impede California's ability to attain compliance with federal ambient air quality standards, and contribute to climate-change induced harms that threaten the State.

An important aspect of any regulation is identifying and specifying which entities are subject to that regulation. In this case, CARB has specified the ACF regulation applies to entities that own, operate, or direct the operation of one or more specified vehicles in California, and that meet any of the following criteria: (1) generate $50 million or more in total gross revenue in the prior year, (2) own, operate, or direct 50 or more vehicles in their fleets, excluding light-duty package delivery vehicles; and (3) fleet owners or controlling parties whose fleet, in combination with other fleets operated under common ownership or control total more than 50 vehicles in the total fleet, excluding light-duty package delivery vehicles.

As explained in Appendix H to the ISOR (H-2-2), CARB determined it was necessary to specify that fleets meeting the first two criteria are subject to the ACF regulation because those criteria are strongly correlated with the fleets that are best suited to accommodate the ZEVs required by the regulation – "entities with larger fleets and revenues are expected to have more flexibility to identify vehicles or routes in the fleet that can be transitioned to ZEs and are considered to be those best suited for transitioning to ZEVs before other fleets that more frequently tend to purchase used vehicles on the secondary market. Fleets that own, operate, or direct 50+ vehicles also represent a substantial portion of the market and typically have multiple locations that may allow for infrastructure investments to likely be more prioritized."[29]

CARB determined it was necessary to specify that entities and fleets meeting the third criterion are subject to the ACF regulation in order to treat similarly situated businesses similarly, and because controlling parties are positioned to have visibility and control over the fleet as a whole that the owner-operators of these vehicles do not have. It is [also] necessary to specify that the applicability criteria apply to the total fleet of vehicles, not just the California fleet, because total fleet size is an indicator of financial means to make the capital investments needed."[30]

Also, "[w]hile generally larger fleets would be subject to the proposed ACF regulation, this is not always the case. Due to the nature of how companies and fleets operate, the high priority requirements of the proposed ACF regulation take into account subsidiaries, hired fleets, and

[29] Appendix H to ISOR, H-2-2
[30] Ibid.

other combinations of service vehicles which total 50 or more vehicles, including vehicles and fleets under common ownership and control"[31]

E. Authority to Accelerate the 100 Percent New ZEV Sales Target from MY 2040 to MY 2036

Comment [15d-103] (Valero): "[N]either staff nor the Board have analyzed whether they have the authority to put impose [sic] such a target in the first place, much less accelerate it."

Response: No change was made in response to this comment. CARB promulgated this provision as an amendment to the initially proposed ACF regulation, and its authority to establish this amendment is included within its authority to promulgate the ACF regulation. See the Agency Response to Comment I.A.

III. CAA Preemption

A. The ACF Rule Cannot Meet the Criteria For a Waiver Under Clean Air Act Section 209

Comment [45d-290] (WJ): EPA cannot make the findings needed to grant the ACF regulation a waiver from the preemptive provisions of the federal Clean Air Act (CAA) section 209(a), pursuant to CAA section 209(b).

Comment [45d-259] (Valero): The commenter asserts that CARB will be unable to obtain a waiver from the preemptive provisions of Section 209(a) of the federal Clean Air Act from EPA because the ACF regulation does not satisfy the criteria in CAA section 209(b) and for other specified reasons. "Moreover, any authority that CARB might otherwise claim with regard to the ACF rule regulation of GHG emissions necessarily stems from the CAA, under which EPA is authorized by Congress to regulate motor vehicle emissions. … The only exception to this prohibition is if EPA grants a preemption waiver to impose standards more stringent than those imposed by the CAA, following notice and opportunity for public hearing and provided certain criteria are met. For the reasons stated above, however, the ACF program does not meet the criteria for a preemption waiver under the CAA and is, therefore, preempted by the CAA …."

Response: No change was made to the regulation in response to this comment. CARB disagrees with these comments, as demonstrated in its responses to the following more detailed comments. CARB further responds that its authority to reduce and eliminate harmful emissions from motor vehicles does not "stem[] from the CAA" as the commenter contends. CARB's authority is organic and inherent in California's authority to protect the health and welfare of its residents as directed by its people through its legislature. The federal CAA recognizes and preserves that authority in Section 209 of the Clean Air Act.

[31] ISOR, p. 59.

1. Technical Feasibility and Costs of Compliance

Comment [45d-290] (WJ): "CAA section 202(a)(3)(A)(i) requires the EPA to adopt vehicle emission standards which represent "[t]he greatest degree of emission reduction achievable *through the application of technology which the Administrator determines will be available for the model year to which such standards apply*, giving appropriate consideration to cost, energy, and safety factors associated with the application of such technology" (emphasis added). …

Instead of following this required section 202 process, CARB has inverted it. Rather than complete a full assessment of the technologies that will be available in each model year in order to determine the emissions reductions achievable in that year, CARB has picked an emission level (zero-emission) and then told fleet operators that they have to comply with that level regardless of technology or commercial availability. By allowing for ZEV unavailability exemptions, daily usage exemptions, and vehicle delivery delay extensions, (ACF Regulation, § 2015.3), CARB has admitted that it has not undertaken the analysis required by section 202 to determine in advance which technologies will be available for each class or category of vehicles in each model year. This analysis is the cornerstone of any vehicle emission standard. If neither CARB nor EPA has completed a thorough assessment of the various options for compliance in each model year, how are fleets supposed to understand what technologies are available for compliance and plan accordingly? By failing to complete this analysis, CARB has rendered the ACF Regulation unable to qualify for a waiver of preemption. …

CARB has also repeatedly emphasized the nuanced requirements for specialized fleets, (ISOR at 91, 98), yet has not and cannot ensure that the technology the ACF Regulation will require is commercially available for all regulated entities."

Comment [45d-259] (Valero): "First, the ACF rule is not consistent with Section 7521(a) of the Clean Air Act. While EPA has described its review under this criterion as narrow, EPA has previously stated that the determination is based on whether 'California's standards are technologically infeasible.' [MEMA I, 627 F.2d at 71 1126]. In prior evaluations, EPA relied on CARB demonstrations that 'the necessary technologies presently exist to meet the established standards,' but that is not the case here. ACF requires 100% ZEV sales by 2040, resulting in an absolute ban on internal combustion engine vehicles. Given this total removal of alternatives from the market, it is not enough for CARB to demonstrate that vehicle manufacturers have the technology (and, inherent in this question, the resources) to produce a single electric vehicle. Rather, examining the technological feasibility of ACF standards must include asking whether vehicle manufacturers have the technology and resources to rapidly shift to producing only electric and fuel-cell vehicles—a relatively new technology category that requires different resources than traditional vehicles—by the millions, as well as whether there is a reliable supply of electricity and batteries and/or hydrogen and fueling infrastructure. For the reasons detailed above— including insufficient global supply of lithium and other rare earth minerals that already are hampering electric vehicle deliveries of light-duty vehicles, insufficient electricity supply, and insufficient hydrogen fueling infrastructure - the answer is no."

Comment [45d-290] (WJ): "CAA section 202(a)(2) and (a)(3)(A)(i) requires that, in adopting vehicle emission standards, EPA give appropriate consideration to the cost of compliance

within each period. Given that, as discussed above, CARB does not actually identify the technology with which specific classes or categories of vehicles will comply with the rule, it is not possible for CARB to have undertaken an analysis of the actual cost of compliance during each period that the ACF Regulation will apply. In fact, the various compliance options (Model Year Schedule and ZEV Milestone Option) and the multiple exemptions from rule applicability (ZEV unavailability, daily mileage usage, infrastructure construction delay, and vehicle delivery delay) make it impossible to assess the cost of compliance within each period."

Comment [45d-280] (NGV America): The commenter questions whether EPA can approve a waiver that its own analysis suggests is not cost-effective.

Response: No change was made in response to these comments. As a threshold point, these comments are directed to a future action by U.S. EPA, not to CARB's rulemaking and thus requires no response here.

Section 209(a) of the CAA provides:

No State or any political subdivision thereof shall adopt or attempt to enforce any standard relating to the control of emissions from new motor vehicles or any new motor vehicle engines subject to this part. No State shall require certification, inspection, or any other approval relating to the control of emissions from any new motor vehicle or new motor vehicle engine as condition precedent to the initial sale, titling (if any), or registration of such motor vehicle, motor vehicle engine, or equipment.

Section 209(b) of the CAA sets forth the protocol for granting California[32] a waiver from the preemption of section 209(a). Under section 209(b), the Administrator must grant a waiver to California if the state has determined that its standards will be, in the aggregate, at least as protective of public health and welfare as applicable federal standards, unless the Administrator finds that (1) the state's protectiveness determination is arbitrary and capricious, (2) California does not need a separate state program to meet compelling and extraordinary conditions, or (3) the state's standards and accompanying enforcement procedures are not consistent with section 202(a) of the CAA.

Under the third waiver criterion, Section 209(b)(1)(C), EPA may deny a waiver if it finds that the standards for which the waiver is requested would render California's new motor vehicle emission program inconsistent with Section 202(a) of the Clean Air Act. "[I]n the waiver context, section 202(a) relates … to technological feasibility."[33] Thus, "the question for the Administrator is," simply, "whether the manufacturers' current and projected capabilities permit them to meet" the requirements of CARB's program.[34] Moreover, "EPA has long

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[32] CAA section 209(b) provides for granting a waiver to "any State that has adopted standards (other than crankcase emission standards) for the control of emissions from new motor vehicles or new motor vehicle engines prior to March 30, 1966." California is the only State that meets this eligibility criterion. See, e.g., S. Rep. No. 90-403, at 632 (1967) and Motor and Equipment Manufacturers Association v. EPA (MEMA I)) 627 F.2d 1095, 1101 fn. 1 (D.C. Cir. 1979).

[33] Motor & Equip. Mfrs. Ass'n v. Nichols ("MEMA II"), 142 F.3d 449, 463 (D.C. Cir. 1998) (internal quotation omitted). In the waiver context, Section 202(a) also relates to federal certification, ensuring "that the Federal and California test procedures do not impose inconsistent certification requirements." Id. The commenter cannot rationally assert that the proposed ACF regulation would prevent a manufacturer from complying with both California and federal test requirements with one test engine or vehicle, because there are no analogous federal requirements.

[34] Motor and Equipment Manufacturers Association v. EPA (MEMA I) (D.C. Cir. 1979) 627 F.2d 1095, 1126.

held that consistency with section 202(a) does not require that all manufacturers be permitted to sell all motor vehicle models in California."[35]

Section 202(a) accordingly requires EPA's Administrator "to first determine whether adequate technology already exists; or if it does not, whether there is adequate time to develop and apply the technology before the standards go into effect. The latter scenario also requires the Administrator to decide whether the cost of developing and applying the technology within that time is feasible."[36]

CARB disagrees that EPA will determine that the ACF regulation is inconsistent with the criterion of Clean Air Act section 209(b)(1)(C). The ACF regulation's requirements that affected fleets must acquire new 2024 and newer model year medium- and heavy-duty ZEVs are consistent with section 202(a) because the required technology already exists. As discussed in the Staff Report, "Medium- and heavy-duty ZEVs available today are already capable of meeting the average needs of local and regional trucking operations and a variety of vocational uses."[37] See also Appendix J to the ISOR which provides a partial listing of medium- and heavy-duty ZEVs that are currently available.

The Staff Report also discusses anticipated developments that will likely increase the number of commercially available ZEVs, and reduce their costs, including projected decreasing costs of batteries and improvements in battery energy density due to economies of scale and increasing pace of technology development,[38] and decreased costs of other ZEV components due to increased production of ZEVs.[39] CARB's conclusions that the ACF regulation is technologically feasible and consistent with CAA section 202(a) are therefore amply supported.

The commenter attempts to portray the compliance flexibility provisions of the ACF regulation that exempt fleets from purchasing ZEVs in certain circumstances, including when a commercially available ZEV does not meet the specific vehicle needs of a fleet, as evidence that the technology needed to comply with the ACF regulation does not exist, but that fails to acknowledge that both California and federal law permit CARB to promulgate regulations based on projections about technology development and deployments. The fact that CARB provided an exemption that could apply in limited circumstances if technology does not develop or is not deployed in anticipated ways in the anticipated timeframes does not undermine either CARB's projections or its authority to make such projections.

Finally, the commenter's complaint that CARB has not created a list of ZEV vehicles that are commercially unavailable (in order to implement the ZEV unavailability exemption provision) is puzzling, especially since this rulemaking action is not yet finalized, and consequently CARB staff is not yet obligated to create that list.

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[35] 43 Fed. Reg. 25,729, 25731 (June 14, 1978) (describing waivers granted despite limitations on sales of certain vehicles).
[36] Decision Document accompanying 61 Fed. Reg. 53371 (Oct. 11, 1996) at p.68; 76 Fed. Reg. 77521, 77526 (Dec. 13, 2011).
[37] ISOR, p. 8, 31 (stating ZE refuse trucks are available from several manufacturers), p. 40 (listing manufacturers of commercially available ZEVs), p. 70, stating "135 models [of ZEVs] are actively being produced and are being delivered to the customer."
[38] ISOR, p. 69 fn. 92 CALSTART, How Zero-Emission Heavy-Duty Trucks Can Be Part of the Climate Solution, 2021 (web link: (web link: https://globaldrivetozero.org/site/wp-content/uploads/2021/05/How-Zero-Emission-Heavy-Duty-Trucks-Can-BePart-of-the-Climate-Solution.pdf, last accessed August 2022).
[39] ISOR, p. 90

With respect to the estimated costs, CARB appropriately considered the cost of compliance of the ACF regulation's requirements within the lead time provided. As stated in Table 39, p. 79 of the Staff Report for the ACF regulation, staff estimated that the average incremental capital cost of a new battery electric ZEV would initially be 37 to 52 percent higher higher than a comparable combustion-powered Class 2b Cargo Van in 2025, 11 percent to 23 percent higher in 2030, and $250 less to 1 percent higher in 2035. Similarly, staff estimated that the average incremental capital cost of a new battery electric Class 8 Sleeper Cab tractor would be 22 percent to 90 percent higher than a comparable combustion-powered Class 8 Sleeper Cab tractor in 2025, $23,612 cheaper than a natural gas powered Class 8 Sleeper Cab tractor in 2030, and $63,824 cheaper than a natural gas powered Class 8 Sleeper Cab tractor in 2035.

CARB staff also performed a total cost of ownership (TCO) to evaluate the costs to fleets associated with purchasing an ACF compliant vehicles and all other related costs including fuel, maintenance, Low Carbon Fuel Standard revenue, infrastructure, midlife costs, and registration fees.[40] That analysis found that the ACF regulation can allow fleets to achieve a positive TCO by 2040, indicating a positive economic decision for fleets. CARB's statewide analysis shows the ACF regulation as a whole is anticipated to result in roughly $48 billion of savings between 2020 and 2050 compared to the Legal Baseline scenario.[41] This represents a substantial net decrease of costs. Therefore, the ACF regulation will benefit affected fleets by providing them net savings that are associated with reduced operating costs.

Finally, in response to the commenter's statement regarding compliance options, staff assessed the above discussed costs of compliance without considering any of the regulation's provisions other than the ZEV Milestone Pathway and the Backup Vehicle Exemption. To extent that fleets utilize exemptions, the usage of such exemptions will decrease the number of ZEVs deployed and accordingly maintain costs closer to the baseline scenario, rather than the ACF Regulation scenario.

2. The ACF Regulation Is Not Consistent With the Lead Time Requirements in CAA Section 202(a)(3)(C)

Comment [45d-290] (WJ): The commenter contends that the ACF Regulation is not consistent with the provisions of Clean Air Act section 202(a)(3)(C), and that its position is supported by case law, (*American Motors Corporation v. Blum* (D.C. Cir. 1979) 603 F.2d 978, and EPA's prior waiver determinations.

Comment [45d-255] (EMA): "In order to implement the proposed ACF regulation, which would establish new emission standards for motor vehicles, CARB must seek and obtain from the U.S. Environmental Protection Agency (EPA) a waiver of federal preemption under the Clean Air Act. See, 42 U.S.C. § 7543(b). One of the necessary prerequisites to EPA's granting a preemption waiver is that the California standards at issue must be consistent with Clean Air Act section 202(a). See, 42 U.S.C. § 7521(a).

[40] Staff Report, pp. 180-202.
[41] Staff Report, p. 199

That section, among other things, requires a minimum of four full model years of leadtime before new heavy-duty vehicle emission standards can take effect. Accordingly, since the proposed ACF regulation does not satisfy that necessary leadtime prerequisite under the Clean Air Act, it would be invalid under federal law. "

Response: No change was made in response to these comments. As a threshold point, the comment is directed to a future action by U.S. EPA, not to CARB's rulemaking and thus requires no response here.

As discussed above in Agency Response to Comment III.A.1, under CAA section 209(b)(1)(C), EPA may deny a waiver if it finds that the standards for which the waiver is requested would render California's new motor vehicle emission program inconsistent with Section 202(a) of the Clean Air Act, and EPA has long understood the reference to Section 202(a) in Section 209(b)(1)(C) as requiring consistency with Section 202(a)(2)'s requirement that EPA's federal standards provide "such period as … necessary to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance within such period."[42] Under this approach, "the question for the Administrator is," simply, "whether the manufacturers' current and projected capabilities permit them to meet" the requirements of CARB's program.[43]

The commenters' assertions that CARB would not be able to obtain a waiver pursuant to section 209(b) of the CAA because the ACF regulation does not provide manufacturers the four years of lead time, *is premised upon their interpretation that CAA section 202(a)(3)(C) of the CAA also applies to emission standards promulgated by CARB.* That section requires that in adopting emissions standards for heavy-duty vehicles or heavy-duty engines, *EPA's Administrator* must provide specified periods of lead time and stability: "Any standard promulgated or revised under this paragraph and applicable to classes or categories of heavy-duty vehicles or engines shall apply for a period of no less than 3 model years beginning no earlier than the model year commencing 4 years after such revised standard is promulgated."

There is no reason for EPA to depart from its traditional and appropriate interpretation and, specifically, no reason for EPA to impose the fixed lead-time and stability requirements of Section 202(a)(3)(C) onto California's standards. Congress's use of the phrase "not inconsistent with" in Section 202(a) expressly indicates that it did *not* intend "to establish a one-to-one correspondence with the federal standards."[44] Rather, Congress chose to require only "congruity or compatibility" with the considerations identified in Section 202(a), including technological feasibility, lead time, and costs.[45] Consequently, EPA's traditional approach to the consistency criterion should apply, and, as discussed in the Agency Response to Comment III.A.1, it is clear that the ACF regulation is consistent with CAA section 202(a). The technologies needed to meet the ACF regulation's requirements currently exist and are appropriate, considering their costs within the time provided by the

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[42] 49 Fed. Reg. 18,887, 18,892 (May 3, 1984) (citation omitted); see also Am. Motors Corp. v. Blum, 603 F.2d 978, 981 (D.C. Cir. 1979) (describing consistency criterion as asking whether California's standards are "inconsistent with section 202(a)(2)").
[43] Motor and Equipment Manufacturers Association v. EPA (MEMA I) (D.C. Cir. 1979) 627 F.2d 1095, 1126.

[44] MEMA II, 142 F.3d at 464.
[45] Env't Def. Fund, Inc. v. EPA, 82 F.3d 451, 457 (D.C. Cir. 1996), amended sub nom. Env't Def. Fund v. EPA, 92 F.3d 1209 (D.C. Cir. 1996).

regulation, and the federal and California test procedures do not impose inconsistent certification requirements.

3. The "Necessity" Criteria Does Not Extend to Climate-Change Induced Harms

Comment [45d-259] (Valero): "[G]lobal climate change cannot be California's 'compelling and extraordinary conditions' under section 209(a), which instead refers to California's distinctive *local* pollution problems. Although the ACF rule purports to also be aimed at criteria pollutants, the reality is that CARB failed to consider any alternative options that it viewed as not aligned with Governor Newsom's Executive Order N-79-20, which as described above is strictly aimed at mitigating climate change via a pre-determined technology selection of ZE vehicles at the expense of ICE vehicles and fossil fuels. This predetermined goal of, and strategy for, combatting climate change cannot satisfy the requirements of Section 209, as California's conditions related to global climate change are "extraordinary" only if California suffers a distinct localized problem. Moreover, California's conditions related to global climate change are not "extraordinary" in that any purported impacts to California are also experienced elsewhere throughout the country and, indeed, the world. Similarly, California has not established that it 'needs'- and indeed does not need – its own emission standards to 'meet' climate change conditions when there are other reasonable alternatives available, as described herein, which CARB failed to consider. Any incidental impacts on local criteria pollution cannot be used to justify standards aimed at global climate change.

Response: No change was made in response to this comment.

CARB disagrees with this comment. As an initial matter, the comment is directed to a future action by U.S. EPA, not to CARB's rulemaking and thus requires no response here. Moreover, the commenter improperly asserts that CAA section 209(b)(1)(B) involves an inquiry regarding California's need for the specific standards established by the ACF regulation, because the proper interpretation of that section is, as EPA recently stated, whether California "needs to have its own separate motor vehicle program as a whole" to address compelling and extraordinary conditions in the State.[46] The commenter does not dispute that California is not experiencing severe air pollution conditions, and that is all that is required for California to demonstrate it satisfies the criterion of CAA section 209(b)(1)(B). Further, even applying the commenter's interpretation, it is clear that California does need the standards established by the ACF regulation in order to protect public health and welfare by attaining federal and State standards for ozone and particulate matter pollution, to address pollution burdens of environmental justice communities (especially those located near major roadways), and to mitigate the increasingly severe and extraordinary climate crisis in California. As explained in detail in the ISOR at Executive Summary Section C, Section IV. Subsections A, B, D through G, and the FSOR Appendix X, the ACF regulation contributes critically to each of these goals and is therefore satisfies the criterion of CAA section 209(b)(1)(B) under any interpretation of that section. This is particularly so, given that the effects of climate change and rising temperatures from GHG emissions make it more difficult

[46] 87 Fed. Reg. 35,768, 35,770 (June 13, 2022).

to reduce ozone air pollution that remains an extraordinary and compelling public health threat in California.[47]

Finally, nothing requires CARB to reserve promulgating vehicle emissions standards, like the ACF regulation, as a last alternative to other means of reducing air pollution. Federal and State law require that California attain the NAAQS as expeditiously as feasible and the California Legislature has directed CARB to achieve the maximum feasible reduction of emissions from motor vehicles for a variety of reasons, including but not limited to attaining the NAAQS. Other means of reducing air pollution beyond vehicle emission standards are outside the scope of the proposal, and, in any event, CARB is undertaking a variety of programs to do so. The ACF regulation is needed *in addition to* those other programs.

4. Protectiveness Criteria

Comment [45d-259] (Valero): The commenter alleges that "CARB's determination that the standards are at least as protective of public health and welfare as Federal standards is arbitrary and capricious."

Response: No change was made in response to this comment.

CARB disagrees with the comment. Under CAA section 209(b)(1)(A), EPA may deny a waiver if it finds that California's determination "that the State standards will be, in the aggregate, at least as protective of public health and welfare as applicable Federal standards" is arbitrary and capricious.[48] This comment is therefore premature, as the Board has not yet made this determination. Moreover, the comment is directed to a future action by U.S. EPA, not to CARB's rulemaking and thus requires no response here. However, nothing in the rulemaking record indicates that if the Board makes a protectiveness determination for the ACF regulation, that determination will be arbitrary or capricious, especially since the ACF regulation is clearly more stringent than EPA's comparable standards, or any applicable federal requirements, because there are no comparable federal requirements. Thus, under Section 209(b)(2), EPA would be unable to conclude that the Board's determination is arbitrary or capricious. In prior decisions, EPA has found that "such protectiveness determinations by California in the absence of Federal standards were reasonable," because "California standards may be most clearly 'at least as protective' when they are compared to the absence of Federal emission standards."[49]

5. The ACF Regulation Does Not Utilize Appropriate Factors to Develop Classes or Categories of New Motor Vehicles or New Motor Vehicle Engines as required by CAA Section 202(a)(3)(A)(ii).

Comment [45d-290] (WJ): "CAA section 202(a)(3)(A)(ii) requires that, '[i]n establishing classes or categories of vehicles or engines for purposes of regulations under this paragraph, the Administrator may base such classes or categories on gross vehicle weight, horsepower, type of fuel used, *or other appropriate factors*' (emphasis added). The ACF Regulation does not

[47] See 74 Fed. Reg. 32,744, 32,763 (July 8, 2009).
[48] 42 U.S.C. § 7543(b)(1), (b)(1)(A).
[49] 74 Fed. Reg. 32,744, 32,755 (Aug. 26, 2005).

utilize appropriate factors to develop classes or categories of new motor vehicles or new motor vehicles engines as required by this section.

…EPA generally categorizes vehicles by class into Light Duty (Class 1-2), Medium Duty (Class 3-6), and Heavy Duty (Class 7-8). EPA defines vehicle categories, also by Gross Vehicle Weight Rating ("GVWR"), for the purposes of emissions and fuel economy certification, such as Class 2 (trucks with a GVWR of 6,001-10,000 lbs.) or Class 8 (heavy-duty trucks with GVWR over 33,001 lbs.). EPA has also adopted classes or categories based on the vehicle's primary function, frontal area, special features, or capacity. (See, e.g., 40 C.F.R. §§ 86.1803-01.) In every case, the class or category is defined by factors intrinsic to the vehicle itself. EPA previously rejected a proposal to treat vehicles as different classes based on method of manufacture because to do so would result in a different class for a vehicle with 'exactly the same function and market' as an existing category. (81 Fed. Reg. 73478, 73518-19).

… The ACF Regulation creates subcategories of normal classes [of vehicles], which means that vehicles with 'exactly the same function and market' may be subject to the ACF Regulation in some instances, but not in others. This subcategorizing by CARB to create standards which vary in their applicability to the same vehicle is not based on appropriate factors under CAA section 202(a). …

Under the ACF Regulation, the same truck (as characterized by EPA) would have a different standard to comply with (1) whether operated in a fleet greater than 50 trucks or a fleet less than 50 trucks, or (2) whether operated in a fleet with an entity with greater than $50 million revenue or less than $50 million revenue. CARB has provided no explanation as to how vehicles require different emissions classifications merely as a function of their ownership. There is nothing in the emissions or operations of the selected vehicles that necessitates subclassifications with different emissions standards.

Response: No change was made in response to this comment. As the commenter's quoted text indicates, CAA section 202(a)(3) governs federal classifications adopted by EPA, not CARB. Moreover, the text does not require EPA to classify heavy-duty vehicles in a particular way both because it uses the verb "may" and because it permits EPA to consider "other" (unspecified) factors. The commenter's contention that CARB somehow failed to comply with discretionary considerations Congress established only for EPA does not require a response.

Notwithstanding that response, the ACF regulation does establish emissions requirements that are based on the weight classifications and the primary functions of motor vehicles; i.e., it requires affected fleets to acquire specified quantities of heavy-duty vehicles and light-duty package delivery vehicles that emit zero exhaust emission of any criteria pollutant (or precursor pollutant) or greenhouse gas under any possible operational modes of conditions, and light-duty and heavy-duty vehicles are defined in pertinent part based on the gross vehicle weights of those vehicles. *See, e.g.,* Cal. Code Regs., title 13 §§ 2015(b) (setting forth definitions of "light-duty package delivery vehicle", "vehicle" or "motor vehicle", and "gross vehicle weight rating.") Furthermore, the ACF regulation accounts for the primary functions of vehicles by both exempting certain categories of vehicles (Cal. Code Regs., tit. 13 §§ 2015(c), and exempting affected fleets from acquiring ZEVs if, in pertinent part, no ZEVs or NZEVs of the needed vehicle configurations are commercially available, (§ 2015.1(c)(5)), and configuration is defined as "the primary intended function for which a

vehicle is designed as determined by the body of a complete vehicle or by the equipment integrated into the body that is permanently attached to the chassis. It does not include auxiliary equipment or secondary uses of equipment that is added to or carried on the vehicle body."

The comment's assertion that the same vehicle would have to meet different standards is simply erroneous. Any given vehicle will have to meet the standards that apply to it, even if different fleets face different requirements concerning fleet composition.

Comment [45d-290] (WJ): "[T]he ACF Regulation's definitions of 'controlling party' and 'common ownership or control' create unreasonable and incoherent classes or categories of vehicles regulated separately under the ACF. …. . The ACF Regulation's complicated determination of which vehicles are regulated and which are not thus conflicts with the CAA section 202 requirement that the determination of classes or categories to be regulated under the section are based on appropriate factors."

Response: No change was made in response to this comment. The immediately preceding response is hereby incorporated by reference into this response. The ACF regulation utilizes the terms "controlling party" and "common ownership or control" to define which *fleets* are subject to the requirements of regulation, not, as the commenter erroneously asserts, define the classes or categories of vehicles regulated by the ACF regulation. See also the Agency Response to Comment II.D.

B. EPA Cannot Issue a Waiver for Fleet Requirements, and Even if the ACF Regulation Qualifies for a Waiver Pursuant to CAA § 209(b), That Waiver is limited by the Energy Policy Act of 1992

Comment [45d-174] (Hexagon): "Hexagon Agility has concerns regarding the appropriateness of the U.S. Environmental Protection Agency ("EPA") granting a section 209 waiver for fleet mandates, and doubt that such a mandate will survive a challenge by impacted businesses. A reasonable interpretation of section 209(b) does not give California authority to regulate fleet purchases. And, even if it does extend to fleet requirements, the authority is not unchecked by the Clean Air Act and the Energy Policy Act of 1992"

Comment [45d-280] (NGV America): "As we stated in recent comments to the U.S. Environmental Protection Agency, we also have concerns regarding the appropriateness of

EPA granting a section 209 waiver for fleet mandates, and doubt that such a mandate will survive a challenge by impacted businesses.

Response: No changes were made in response to these comments. As the comments themselves make clear, they are directed at EPA's authority to grant Clean Air Act preemption waivers and require no response here. In any event, EPA has repeatedly granted waivers for a variety of regulatory designs adopted by CARB, and commenters do not explain why these fleet requirements are legally different. Notably, the commenter does not claim that the ACF regulation is not preempted by Section 209(a) of the Clean Air Act. If it is preempted, a waiver is available because Section 209(b) authorizes EPA to "waive application" of Section 209(a). *See also Motor & Equip. Mfrs. Ass'n, Inc. v. E.P.A.*, 627 F.2d 1095, 1107 (D.C. Cir. 1979) ("The plain meaning of the statute indicates that Congress intended to make the waiver power coextensive with the preemption provision."). If the ACF regulation is not preempted by Section 209(a), then the Clean Air Act provides not obstacle to its enforcement or implementation.

CARB promulgates emissions standards for new motor vehicles and new motor vehicle engines pursuant to the authority vested in CARB under state law, not by the CAA. In addition the commenter has not provided any specific text or rationale to support its statement that the Energy Policy Act of 1992, Pub. L. 102-486, 106 Stats. 2776 (1992) limits California's authority to promulgate emissions related requirements for on-road motor vehicles or EPA's authority to waive preemption for such requirements.

In fact, that Act was designed to reduce the nation's dependence on petroleum by directing federal acquisition, to the extent practicable, of alternative-fueled vehicles (which include vehicles powered by electricity) by ensuring that both the federal government and specified private entities use such vehicles (Pub. L. 102-486 § 302(a)(3)(A), 106 Stat. 2869 (1992) and § 501, 106 Stat. 2887 – 2888 (1992), respectively. Section 510(a) of the Act also provided that "[n[othing in this Act or the amendments by this Act shall be construed to alter, affect, or modify the provisions of the Clean Air Act, or regulations issued thereunder," 106 Stat. 2899 (1992). Nothing in Congress' enactment of the Energy Policy Act of 1992 supports the commenter's assertions

C. Implementation or Enforcement of the ACF Regulation Prior to EPA's Issuance of a Clean Air Act Waiver

Comment [45d-290] (WJ): CARB cannot implement or enforce the ACF regulation unless or until EPA grants California a waiver for the regulation pursuant to the provisions of CAA section 209(b).

Comment [15d-171] (TRALA): CARB is assuming that it does not need to seek a formal waiver of federal preemption under Clean Air Act (CAA) Section 209 before it can begin to implement and enforce this rule. Because the ACF requires fleet operators purchase vehicles certified to applicable California emission standards and emissions-related requirements, this constitutes a standard relating to motor vehicle emissions and is therefore preempted under CAA Section 209(a) unless and until EPA grants a waiver under Section 209(b). If such a waiver is approved by EPA, only then can California implement and enforce these standards on truck purchasers and allow other states to consider "opting-into" CARB's ACF rule under CAA Section 177.

Comment [15d-117] (WSPA and AFPM): "In order for the ACF rule to be legally adopted and enforced in California and/or other Section 177 states, CARB must acquire a waiver under the Clean Air Act from the United States Environmental Protection Agency (USEPA). … CARB cannot enforce any rule that would be preempted prior to EPA's authorization."

CARB may need to defer implementation of the regulation given recent delays in the USEPA's

Clean Air Act waiver process. CARB needs to estimate when the petition for a waiver will be submitted to USEPA and when they expect action in response from USEPA. CARB must clarify how enforcement will be deferred if a decision is not made on the waiver before the beginning of any rule implementation requirements.

Response: CARB agrees that it needs a preemption waiver to enforce the elements of the ACF regulation that establish standards for new motor vehicles and new motor vehicle engines. CARB disagrees with this comment to the extent it pertains to standards for in-use motor vehicles and in-use motor vehicle engines. As the commenter acknowledges, CAA section 209(d) expressly preserves the authority of states to regulate or restrict "the use, operation, or movement of registered or licensed motor vehicles," and California does not need a waiver of preemption pursuant to section 209(b) to implement such requirements.

As to the comments regarding the timing of EPA's issuance of waivers, those comments are speculative and are not specifically directed to an element of the ACF regulation or to the procedures followed by CARB in proposing or adopting the ACF regulation, and therefore do not require responses here. If timing concerns actually arise in the future, they can be addressed through appropriate mechanisms.

D. The Federal Clean Fuel Fleet Program

Comment [45d-290] (WJ): The commenter asserts that the ACF regulation is inconsistent with the provisions of the Clean Fuel Fleet Program (Section 246 of the CAA Act (42 U.S.C. § 7586)) which "covers vehicle acquisition decisions by individuals, corporations, and all levels of state government", and that the ACF regulation is consequently "preempted" by that section.

Response: No change was made in response to this comment.

CARB did not promulgate the ACF regulation pursuant to the authority of Section 246 of the CAA, or to comply with that statutory provision, but instead did so pursuant to its authority, under state law, to protect the health and welfare of its citizens, as discussed in Agency Response to Comment I.A. In addition, Section 246 imposed requirements on certain States that had to be completed "within 42 months after November 15, 1990." 42 U.S.C. § 7586(a)(1). The commenter has not pointed to anything establishing that those requirements applied to California or that the requirements continued past the statutory deadline in the 1990s. As such, the comment requires no response.

In any event, nothing in the comment establishes a conflict between the ACF regulation and whatever remains of any programs established pursuant to Section 246.

Furthermore, the text of Sections 209(b) and 209(d) evinces Congress' clear intent to not preempt California's authority to regulate emissions from new or in-use motor vehicles, but

rather to encourage California to continue leading the nation by establishing more stringent new motor vehicle emissions standards: "The history of congressional consideration of the California waiver provision … 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." *Motor and Equip Mfr's Ass'n, Inc. v. EPA*, 627 F.2d 1095, 1110-1111 (D.C. Cir. 1979). These considerations rebut any contention that Congress impliedly preempted CARB's authority in Section 246.

The commenter extensively cites to *Engine Mfrs. Ass'n v. S. Coast Air Quality Mgmt. Dist.* 541 U.S. 246 (2004) to support its argument, but that case did not address, let alone decide, a claim of conflict preemption under Section 246. *See* id. at 254.

E. Clean Air Act Section 245

Comment [45d-290] (WJ): "The ACF regulation imposes purchase standards on the acquisition of Class 7 and Class 8 trucks in violation of section 7585."

Response: No change was made in response to this comment. CAA § 245 (42 USC § 7585) only applies to standards promulgated under Part C of Title II of the Clean Air Act and is not applicable here. 42 U.S.C. § 7585(a) ("For classes or categories of heavy-duty vehicles or engines manufactured for the model year 1998 or thereafter and having a GVWR greater than 8,500 lbs. and up to 26,000 lbs. GVWR, the standards *under this part* for clean air vehicles …" See also the Agency Response to the immediately preceding Comment.

F. Clean Air Act Sections 183(e)(1)(A) and (e)(2)(B)

Comment [45d-207] (CCEB): "Clean Air Act Section 183(e)(1)(A) (42 U.S.C. § 7511(e)(1)(A)) requires ozone measures and "best available controls" to both be technologically and economically feasible, and Section 183(e)(2)(B) requires agencies to consider the cost-effectiveness of controls, as well as comparable costs of alternatives, among other factors", and California Health and Safety Code provisions (citing Health and Safety Code sections 39602.5 and 43013), require that CARB adopt measures that are "necessary, technologically feasible, and cost-effective"

Response: No change was made in response to this comment. As a threshold matter, CARB notes that Clean Air Act Section 183(e) is not applicable to the proposed regulation, as that statutory provision governs actions of EPA concerning stationary sources. *See, e.g.*, § 183(a) (mandating the Administrator of EPA to issue "control techniques guidelines for 11 categories of stationary sources of VOC emissions), §183c (mandating the Administrator of EPA to issue technical documents identifying alternative controls for specified categories of stationary sources of volatile organic compounds and oxides of nitrogen), and § 183(d) (mandating the Administrator to provide guidance to the states to assist in evaluating the relative cost-effectiveness of various options to control emissions from existing stationary sources of air pollutants). Moreover, § 183e(2)(B) only applies to "consumer and commercial products" (§183(e)(2)(B)(i)), which are expressly defined as excluding motor vehicles (§ 183(e)(1)(B)). *See also* 71 Fed. Reg. 28321 (May 16, 2006).

Notwithstanding that response, CARB has determined that the ACF regulation is technologically feasible, considering the costs of developing the technology needed to comply with the ACF regulation. *See* Agency Response to Comments III.A.1.

In response to the comment that CARB is obligated to adopt measures that are necessary, see Agency Response to Comment I.A.

In response to the comment that CARB is obligated to adopt measures that are cost-effective, see Agency Response to Comment I.A, and Comments I.B.

IV. Other Statutory Preemption

A. EPCA

Comment [45d-259] (Valero): Commentor states that CARB lacks authority to approve the proposed ACF rule because it is inconsistent with, frustrates, and is preempted by the statutory mandates of federal legislation, including the Energy Policy and Conservation Act ("EPCA"), the CAA, and the Energy Independence and Security Act ("EISA"), including the Renewable Fuel Standard ("RFS").

Congress has authorized the U.S. Department of Transportation and NHTSA to establish fuel economy standards under EPCA. These average standards are known as 'corporate average fuel economy' or 'CAFE' standards. The CAFE standard is 'a performance standard specifying a minimum level of average fuel economy applicable to a manufacturer in a model year.' Under EPCA, 'When an average fuel economy standard prescribed under this chapter is in effect, a State or a political subdivision of a State may not adopt or enforce a law or regulation related to fuel economy standards or average fuel economy standards for automobiles covered by an average fuel economy standard.' Through the ACF rule, however, CARB seeks to do precisely that by virtue of its 100% ZEV mandate. More specifically, the motor vehicle emissions standards underlying this mandate are 'related to' fuel economy standards because regulating fuel economy controls the amount of motor vehicle emissions and, in turn, regulating motor vehicle emissions controls fuel economy [*See e.g.*, *California By and Through Brown v. EPA*, 940 F.3d 1342, 1345 (D.C. Cir. 2019) (providing that 'the technologies to control CO2 emissions and to improve fuel economy overlap to a great degree')]. Indeed, the GHG emissions targeted by the ACF rule relate directly to combustion or the actual consumption of fuel, the rate of which is determinative of a vehicle's fuel economy. Accordingly, ACF is indeed related to fuel economy standards and, therefore, expressly preempted by EPCA.

Response: No change was made in response to this comment. The Response to Comment IV.B is also incorporated by reference herein. CARB disagrees with the assertion that the standards are preempted by EPCA. As the commenter's quote indicates, EPCA's preemption provision does not extend to medium- and heavy-duty on-highway vehicles and work trucks as those classes of vehicles are not ''automobiles'' as defined in 49 U.S.C. 32901(a)(3). Moreover, as the two courts to decide the same arguments concerning light-duty vehicles have found, vehicle emissions standards for which California obtains a waiver under Section 209 of the Clean Air Act are not related to fuel economy standards within the meaning of EPCA's preemption provision. *Green Mountain Chrysler Plymouth Dodge Jeep v. Crombie*,

508 F. Supp. 2d. 295 (D. Vt. 2007); *Central Valley Chrysler-Jeep, Inc. v. Goldstene*, 529 F. Supp. 2d 1151 (E.D. Cal. 2007).)

Indeed, during EPCA's enactment and since, Congress has repeatedly embraced California's authority to set new motor vehicle emission standards. See, e.g., Pub. L. No. 110-140, § 141 (2007) (requiring federal procurement requirements be calculated by reference to California's greenhouse gas standards (Pub. L. 105-549, § 246 (1990) (directing the U.S. EPA to incorporate California's zero-emission vehicle standards into crediting provision for certain private fleets); Pub. L. 177-169, § 60105(g) (2022) (authorizing grants to support states' adoption and implementation of California's zero-emission-vehicle standards). This continued support for California's standards cannot be reconciled with the notion that those standards are preempted by EPCA. Finally, the ACF regulation is not preempted by EPCA because it does not relate to fuel economy standards. In fact, the zero-emission vehicles required by the ACF regulation have no "fuel economy" as that term is defined by EPCA.

B. EISA And the Renewable Fuel Standard

Comment [45d-259] (Valero): "Further, because the proposed ACF rule would decrease and ultimately eliminate the volume of renewable fuel used for transportation, it frustrates Federal mandates under the Renewable Fuel Standard. Congress created the RFS to 'move the United States toward greater energy independence and to reduce greenhouse gas emissions.' Congress intended the program 'to be a 'market forcing policy' that would create 'demand pressure to increase consumption' of renewable fuel.' Because Congress directed EPA to comply with the RFS, EPA cannot either on its own or by virtue of a Section 209 waiver of the ACF Program promote the substantial or exclusive use of technologies that will frustrate its goals. By extension, CARB cannot do what EPA cannot do on its own, yet that is precisely what ACF would do by decreasing or eliminating consumption of biomass-based diesel and other renewable fuels and arbitrarily promoting replacement technologies to achieve the very same objectives. Therefore, ACF ZEV purchases at the expense of renewable fuels both decreases volumes of renewable fuels in transportation and creates even greater energy security risks through dependence on minerals sourced almost entirely outside the United States. Thus, ACF frustrates the goals of EISA and the RFS, and goes beyond the authority of CARB."

Response: No change was made in response to this comment. CARB disagrees with this comment. This comment focuses primarily on the Renewable Fuel Standard (RFS) program created by the Energy Independence and Security Act of 2007 (EISA), arguing that the ACF regulation is preempted by that program. The premise of this claim is that RFS was designed solely to increase biofuel production and, from there, the comment argues that ACF regulation conflicts because it will reduce the production and use of all liquid transportation fuels, including biofuels. But this premise is an erroneous oversimplification of the design and objectives of the RFS program. In reality, even if ACF regulation might reduce the amount of renewable fuels consumed by motor vehicles sold for use in California because it reduces the total amount of liquid fuels such vehicles require, that creates no impossibility or obstacle for the RFS or its underlying objectives.

For one thing, Congress's objective for that program was to reduce greenhouse gas emissions from motor vehicles, and the ACF regulation advances that very same objective.

For another, Congress designed the RFS program so that its obligations—the amount of renewable fuel that must be sold—are "expressed in terms of a volume percentage of transportation fuel sold or introduced into commerce in the United States." (42 U.S.C. § 7545(o)(3)(B) (emphasis added).) In other words, Congress designed the RFS renewable fuel volume obligations to adjust based on changes in the total amount of transportation fuel sold in the United States, and, thus, the RFS program responds automatically to any state program that, like the ACF regulation, might reduce the total transportation fuel volume. And, because there are multiple types of biofuels that can be produced from biomass feedstocks, as the demand for fossil fuels declines in California, biofuel resources and production can be shifted to supply diesel fuel replacements in other transportation fuel sectors, like off-road or aviation—enabling a shift in the renewable fuels and identification number markets, not conflict with or elimination of either. Likewise, the percentage-based volume obligations demonstrate that Congress well understood that total fuel volumes might change over time and, thus, such changes create no obstacle to the RFS program's requirements or its objectives. Put simply, there is no impossibility or obstacle because Congress designed its RFS program to respond to and account for changes in total transportation fuel volumes.

Congress did establish baseline volumes for most renewable fuels, but, notably, it did so only through 2022. (Id. § 7545(o)(3)(B)(i)(I)-(III).) As a consequence, U.S. EPA will be establishing relevant obligations under the RFS based on percentages (as Congress instructed) and on EPA's analysis of a number of factors, including renewable fuels' impact "on air quality [and] climate change" and "the expected annual rate of future commercial production of renewable fuels." (Id. § 7545(o)(3)(B)(ii).) U.S. EPA will begin doing this before the ACF regulation's first model year and any impact on total transportation fuel volumes. Due to the long life of medium- and heavy-duty vehicles, and the amount of interstate traffic, even after the full implementation of the ACF Regulation, about half of these trucks operating on California's roadways will still be combustion. Finally, the comments seem to assume that Congress intended to prioritize increased renewable fuel production above objectives expressed elsewhere and to implicitly preempt programs like the ACF regulation, despite their longstanding history. But the statute says quite the opposite. Congress expressly indicated that EISA did not alter existing environmental laws, which would include the provision of the Clean Air Act that provides for California to continue adopting and enforcing a separate motor vehicle emission reduction program: "[N]othing in this Act … supersedes [or] limits the authority provided … by any provision of law (including a regulation), including any energy or environmental law or regulation." (Id. § 17002.) This underscores the absence of any conflict preemption between vehicle emission standards Congress expressly contemplated (e.g., California's standards) and EISA's goals and programs (including RFS).[50]

[50] See also Rocky Mountain Farmers Union v. Corey (E.D. Cal. 2017) 258 F.Supp.3d 1134, 1149-1151 ("Simply put, both the CAA's and the EISA's savings clauses evince Congress's express intent not to preempt state legislation aimed at improving a state's air quality. Rocky Mountain Farmers Union v. Corey , 730 F.3d 1070, 1097 (9th Cir. 2013) ('Congress has expressly empowered California to take a leadership role as to air quality').").

C. Federal Aviation Act, Airline Deregulation Act, and the Federal Aviation Authorization Act of 1994 (FAAAA)

Comment [WT1-4]; [15d-121] (Airlines for America): The [Federal] Aviation Act reserves to the FAA primary and exclusive jurisdiction over matters related to aircraft operations and safety, the former of which is closely tied to the non-road GSE and non-road vehicles that air carriers operate at airports. *See* City of Burbank, 411 U.S.at 639.

Comment [WT1-4]; [15d-121] (Airlines for America): The Airline Deregulation Act ("ADA") provides that a state "may not enact or enforce a law, regulation, or other provision having the force and effect of law related to a price, route, or service of [an] air carrier . . . ." As the U.S. Supreme Court has explained, this language "express[es] a broad preemptive purpose," and ADA preemption applies even if a state law is not expressly designed to affect airline prices, routes, and services, and even if the impact is only indirect.

Comment [45d-290] (WJ): The proposed ACF Regulation—or anything resembling it—would run afoul of the preemption provision of the [Federal Aviation Administration Authorization Act of 1994] FAAAA. The FAAAA prohibits states from "enact[ing] or enforce[ing] a law, regulation, or other provision having the force and effect of law related to a price, route, or service of any motor carrier . . . with respect to the transportation of property." (49 U.S.C. § 14501, subd. (c)(1).)

Response: No change was made in response to these comments. The ACF regulation is not preempted by the Federal Aviation Act of 1958, the Airline Deregulation Act, or the Federal Aviation Administration Authorization Act of 1994.

Preemption under the Federal Aviation Act of 1958 "generally applies to state regulations specifically in the field of *aviation safety*." *Bernstein v. Virgin Am., Inc.*, 3 F.4th 1127, 1138 (9th Cir. 2021), *cert. denied,* 213 L. Ed. 2d 1115, 142 S. Ct. 2903 (2022). The commenter identifies no impacts on aviation safety from the ACF Regulation and thus fails to identify a preemption theory. That part of the comment requires no further response.

The Airline Deregulation Act "preempts state laws 'related to a price, route, or service of an air carrier.' 49 U.S.C. § 41713(b). State laws that affect rates, routes, or services in too tenuous, remote, or peripheral a manner are not preempted." *Air Transp. Ass'n of Am., Inc. v. Washington Dep't of Lab. & Indus.*, 859 F. App'x 181, 184 (9th Cir. 2021), *cert. denied,* 213 L. Ed. 2d 1115, 142 S. Ct. 2903 (2022) (cleaned up). The comments do not identify any specific impactxs on rates, routes, and services of air carriers, much less any effects that are more than tenuous, remote, or peripheral.

The Federal Aviation Administration Authorization Act of 1994 "expressly does *not* regulate a state's authority to: enact safety regulations with respect to motor vehicles; control trucking routes based on vehicle size, weight, and cargo; impose certain insurance, liability, or standard transportation rules; regulate the intrastate transport of household goods and certain aspects of tow-truck operations; or create certain uniform cargo or antitrust immunity rules. 49 U.S.C. § 14501(c)(2), (3). This list was "not intended to be all inclusive, but merely to specify some of the matters which are not 'prices, rates or services' and which are therefore not preempted." H.R. Conf. Rep. No. 103–677, at 84, *reprinted in* 1994 U.S.C.C.A.N. at 1756. Accordingly, Congress did not intend to preempt generally applicable state

transportation, safety, welfare, or business rules that do not otherwise regulate prices, routes, or services." *Dilts v. Penske Logistics, LLC*, 769 F.3d 637, 644 (9th Cir. 2014). The ACF regulation is a generally applicable rule that protects health and welfare, and commenters have identified no way in which it would regulate prices or otherwise have a significant impact on carrier rates, routes, or services.

These comments also fail to take account of Congress's express authorization, and repeated embrace of, California standards for new motor vehicles. See Response to Comment IV.A.

Comment [WT1-4] (Airlines for America): Federal courts have held that ADA preemption extends to the regulation of off-road airport support vehicles because such equipment is "integral" to carriers' services.[24]

[24] See, e.g., Federal Express Corp. v. California Pub. Utilities Comm'n, 936 F.2d 1075, 1078 (9th Cir. 1991) (holding that California's generally applicable trucking regulation of air carrier's trucking operations was preempted because such trucking operations "are integral to . . . operation as an air carrier"); Marlow v. AMR Serv., 870 F. Supp. 295, 298-99 (D. Haw. 1994) (finding ADA preemption because GSE (jet bridge) form an "integral part" of air carrier services)

With the U.S. Supreme Court's broad interpretation of the term "related to," the ADA preempts all state laws that have "a connection with or reference to" airline prices, routes, or services. This limitation on CARB's authority not only applies to equipment at airports that relate to airport operations, but also to fleets of medium and heavy-duty vehicles that support, supply, or facilitate aircraft operations, or the transportation of property in air commerce, which may include those that CARB seeks to regulate with the Proposed Rule. *Federal Express Corporation,* 936 F.2d at 1078 (specifying an air carrier's "trucking operations" are not some separate business venture; they are part and parcel of a unified air delivery system).]

Response: No change was made in response to these comments. CARB incorporates its responses to the immediately preceding comment herein. The commenter further cites to cases that it contends support its assertion that the ADA preempts the ACF regulation, but as explained below, those cases are inapposite and distinguishable from the ACF regulation.

The commenter cites to *Federal Exp. Corp. v. California Pub. Utilities Com'n*, 936 F.2d 1075 (9th Cir. 1991) but that case involved direct regulation of rates and terms of services of air carriers. *Id.* at 1078. That case expressly recognized that the ADA allows "the state to act in an area of non-economic regulation," such as the regulation of emissions to improve air quality and public health and welfare. *Id.*

The comment also cites *Marlow v. AMR Serv.*, 870 F. Supp. 295, 298-99 (D. Haw. 1994), but that court concluded that permitting litigation of certain state law claims would interfere with the necessary maintenance of jetbridges at airports. As noted above, the comment here has not identified any similar impacts the ACF would have on any activity "integral" to aircraft carriers' operations.

D. Section 43021 of the California Heath & Safety Code

Comment [45d-290] (WJ): The Commenter asserts that the ACF regulation is inconsistent with, and therefore preempted by Section 43021 of the California Health and Safety Code.

Response: No change was made in response to this comment.

Health and Safety Code § 43021(a) does not apply to CARB regulations that establish emission standards or emissions related requirements for new heavy-duty vehicles or engines, but only applies to in-use laws or regulations; that is, laws or regulations that might require "the retirement, replacement, retrofit, or repower of a self-propelled motor vehicle" until the later of time or mileage periods specified in 43021(a)(1) and (2).

This conclusion is reinforced by the pertinent legislative history. Specifically, the Assembly and Senate Bill Analyses of § 43021 (*See* S. Comm. on Appropriations, 2017-2018 Sess., at page 9 (April 3, 2017), S. Rules Comm., 2017-2018 Sess., at p. 6 (April 5, 2017), and Assemb. Analysis, 2017-2108 Sess. at page 3, April 6, 2017)

characterize this provision as follows:

> Creates a "useful life" period where truckers subject to future, undefined regulations can get a return on their investment *before being asked to replace or modify the vehicle. Thus, if the California Air Resources Board adopts future in-use regulations, trucks will not be required to turnover until they have reached 13 years from the model year the engine and emission control systems are first certified or until they reach 800,000 vehicle miles traveled; however, no longer than 18 years from the model year the engine and emission control systems are first certified for use. (Emphasis added).*

Consequently, both the text and the legislative history establish that Health and Safety Code § 43021 does not affect CARB's ability to promulgate emissions standards or emissions related requirements for new heavy-duty vehicles or engines. This conclusion is reinforced by Health and Safety Code § 43021(d), which expressly provides that "this section is not meant to otherwise restrict the authority of the state board or districts." Moreover, the elements of the ACF regulation that do establish requirements for fleets to retire or replace in-use heavy-duty vehicles are consistent with the provisions of Health and Safety Code section 43021(a) because such elements allow the owners or operators of existing internal combustion engine powered trucks to operate such trucks over useful life periods that are consistent with the chronological or operational periods specified in Health and Safety Code § 43021 before requiring the retirement, replacement, or modification of such trucks.

Comment [45d-207] (CCEEB): "Waiver of Rights Established in Health & Safety Code 43021(a). CCEEB is concerned that CARB would seek to have fleet owners 'knowingly and voluntarily' waive away rights they have in the Health & Safety Code, as this appears to be an attempt to circumvent SB 1 (Beall, 2017). Indeed, the so-called 'Flexibility Option' would, in most cases, not be 'voluntary' at all. That is, fleets that could not immediately transition to ZEVs on January 1, 2024 would be left with no other option; we disagree, then, that this is a 'voluntary' choice."

Response: No change was made in response to this comment.

A party can voluntarily waive statutory rights that benefit that party, unless the legislature has affirmatively indicated that such rights cannot be waived. *United States v. Mezzanatto*, 513 U.S. 196, 200-201 (1995) *citing Shutte v. Thompson*, 15 Wall. 151, 159 (1873) and *Evans v. Jeff D.*, 475 U.S. 717, 730-732 (1986); *Price v. U.S. Dep't of Just. Att'y Off.*, 865 F.3d 676, 679 (D.C. Cir. 2017), Cal. Civ. Code § 3513, *Bickel v. City of Piedmont*, 16 Cal.4th 1040 (1997) *superseded by statute*, Stats.1998, ch. 283, § 5, as recognized in *DeBard Properties. Ltd. v. Lim*, 20 Cal.4th 659 (1999)

Notably, Cal. Civ. Code § 3513 provides that "Any one may waive the advantage of a law intended solely for his benefit. But a law established for a public reason cannot be contravened by a private agreement."[51]

It is also clear that a party cannot waive a statutory provision that was primarily enacted to protect the public. *Hudson Water Co. v. McCarter*, 209 U.S. 349, 357 (1908) (affirming decision that enjoined private contract from delivering water that conflicted with state statute limiting transfers of state waters). "The private right to appropriate is subject not only to the rights of lower owners, but to the initial limitation that it may not substantially diminish one of the great foundations of public welfare and health." 209 U.S. at 356. *U.S. Trust Co. of New York v. New Jersey*, 431 U.S. 1, 22 (1977); *Bickel v. City of Piedmont*, 16 Cal.4th 1040, 1048 (1997) *superseded by statute*, Stats.1998, ch. 283, § 5, as recognized in *DeBard Properties. Ltd. v. Lim*, 20 Cal.4th 659 (1999).

In *Bickel v. City of Piedmont*, the California Supreme Court held that a party can waive rights and privileges afforded to that party by a statute unless the waiver is otherwise prohibited by specific statutory provisions,[52] the statute's "public benefit ... is merely incidental to [its] primary purpose",[53] and the "waiver does not seriously compromise any public purpose that [the statute was] intended to serve."[54]

The *Bickel* court determined that the Permit Streamlining Act (PSA),[55] which requires governmental agencies to approve or disapprove applications for land use permits within specified time frames, and further specifies that applications which agencies fail to approve or disapprove within said time frames are "deemed approved," did not preclude a party from waiving its rights to the permit processing time limits established in the PSA. The court found that the PSA primarily benefitted applicants, because the PSA protected applicants

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[51] The California Supreme Court has stated that this statute does not preclude a person from waiving his or her rights if the statute provides some degree of benefits to the public.

> Section 3513, one of the maxims of jurisprudence in our Civil Code, is an aid to the application of statutory law, not an inflexible legal principle. (Civ. Code, § 3509; Irwin v. City of Manhattan Beach (1966) 65 Cal.2d 13, 21, 51 Cal.Rptr. 881, 415 P.2d 769.) Because it is difficult to conceive of a statutory right enacted solely for the benefit of private individuals that does not also have an incidental public benefit, a literal reading of Civil Code section 3513 would eliminate the established rule that rights conferred by statute may be waived unless specific statutory provisions prohibit waiver. For this reason, a literal construction of section 3513 would be unreasonable. (See Civ.Code, § 3542 [interpretations must be reasonable].)

Bickel v. City of Piedmont, 16 Cal.4th 1040, 1048, fn 4. (1997)

[52] 16 Cal.4th 1040, 1048-1049, fn 4.

[53] Id. at 1049

[54] Id. at 1050

[55] The Permit Streamlining Act (PSA) was initially enacted in 1977 [Stats.1977, ch. 1200], and had been amended six times before the Bickel court examined it. Subsequent to the Bickel court decision, the Legislature amended the PSA to clarify that the PSA "does not provide for the application of the common law doctrine of waiver by either the act's purpose or its statutory language. (Stats.1998, ch. 283, § 5.)" Riverwatch v. City of San Diego, 76 Cal.App.4th 1428, 1439 (1999).

from "potential government abuse resulting from disapprovals based on requirements unknown to the applicant. And in imposing a time limit within which the public agency must approve or disapprove a permit application, the Act protects applicants from the caprice and arbitrariness associated with protracted and unjustified delays by the government."[56] The court noted that "[s]ome public benefit is … inherent in most legislation. The pertinent inquiry, therefore, is not whether the law has any public benefit, but whether that benefit is merely incidental to the legislation's primary purpose",[57] then found that although the PSA did provide some benefits to the public,[58] such benefits were incidental to the primary purpose of the PSA– namely, to protect *permit applicants from agency delay in reviewing and processing applications*.

In this case, it is clear that SB 1 was enacted to *primarily benefit owners that purchase specified categories of heavy-duty vehicles*. The Legislature enacted SB 1 to

Create[] a "useful life" period where truckers subject to future, undefined regulations can get a return on their investment before being asked to replace or modify the vehicle. Thus, if the California Air Resources Board adopts future in-use regulations, trucks will not be required to turnover until they have reached 13 years from the model year the engine and emission control systems are first certified or until they reach 800,000 vehicle miles traveled; however, no longer than 18 years from the model year the engine and emission control systems are first certified for use.

Assembly and Senate Bill Analyses of SB1 (4/6/17, 4/5/17, and 4/3/17)

Any public benefit provided from SB 1 (conceivably increased sales of diesel fuel and increased maintenance provided to truckers) is clearly incidental to SB 1's primary purpose – to ensure that owners will not be required to retire, replace, or repower purchased trucks for a specified time period, and it is also apparent that waiving the time periods established by SB 1 would not compromise the public's health and welfare, but would instead *further protect* the public's health and welfare by enabling CARB to retire combustion engine powered heavy-duty trucks with zero emitting heavy-duty trucks in a much shorter time frame than otherwise available. SB 1 also does not prohibit owners from waiving its time periods, and consequently, CARB is authorized to establish a compliance option (the ZEV Milestones Option) that provides truck owners the choice to waive the time limits specified in SB 1 in exchange for the opportunity to use a compliance option that provides the owners greater flexibility in determining which trucks to retire and/or replace with ZEVs, as contrasted with the primary compliance option (the Model Year schedule), which requires all new additions to a fleet to be ZEVS and that all ICE vehicles in the fleet to be removed when such vehicles reach their SB 1 useful life period.

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[56] 16 Cal. 4th 1040, 1049.

[57] Id. at 1049. The court also clarified that the word "solely" in Cal. Civ. Code § 3513, "Anyone may waive the advantage of a law intended solely for his benefit. But a law established for a public reason cannot be contravened by a private agreement." "does not compel the conclusion that waiver is precluded if there is any incidental benefit to the public from a statutory right. See footnote 1, supra.

[58] "The Act's time limits benefit neighboring landowners by expediting government decisions on permit applications that may affect their property, benefit other applicants by requiring the agency to make decisions on applications so that their applications may be timely considered, and benefit taxpayers by decreasing the cost of government through increased government efficiency and the prevention of waste." Id. at 1049

1. ACF Is Inconsistent with Health and Safety Code § 43021(a)

Comment [15d-138] (CTA/ATA):

"Sections 2014 and 2015(b), the Minimum Useful Life definition, include:

> "If a vehicle no longer has its original equipped engine, or the model year of the originally equipped engine is not able to be determined, the model year of the vehicle *less one year* must be used to determine the [minimum useful life] thresholds…" [emphasis added]

Section 2015.1(b), ICE Vehicle Removal, states:

> "Beginning January 1, 2025, ICE vehicles must be removed from the California fleet by January 1 of the calendar year after the minimum useful life *mileage* threshold was exceeded, or January 1, of the calendar year the engine model year is 18 years old or older, whichever occurs first." [emphasis added].

H&SC Section 43021 provides that, with limited exceptions inapplicable here, "the retirement, replacement, retrofit, or *repower* of a self-propelled commercial motor vehicle … *shall not be required* until the later of … [t]hirteen years from the model year the engine and emission control system are first certified" or when "the vehicle reaches the earlier of either 800,000 vehicle miles traveled or 18 years" from the certification of the engine and emission control system. (California Bill Analysis, S.B. 1 Sen., 4/3/2017, subd. (a) [emphasis added].)

As presented in the proposed 15-day language, the minimum useful life threshold is being reduced by one year for repowers and other circumstances while the thirteen-year minimum useful life threshold is not recognized under the ICE Vehicle Removal provision. Both are inconsistent with state law.

Response: No change was made in response to this comment. CARB disagrees that 13 CCR §§ 2014(b) and 2015(b) are inconsistent with the provisions of Health and Safety Code § 43021(a). As explained in the Agency Response to Comment IV.D, which is incorporated by reference into this response, that statutory provision creates a "useful life" period for truckers that purchase *new* vehicles, which assures such truckers that they will not be required to replace, retire, or repower their vehicles until the later of time or mileage periods specified in 43021(a)(1) and (2).

The first provision of Cal. Code Regs., tit. 13, §§ 2014(b) and 2015(b)(C) only applies to in-use engines (i.e., "If a vehicle no longer has its original equipped engine," whereas Health and Safety Code § 43021(a) and (b) specify the "useful life" period commence "from the model year the engine and emission control system are *first certified for use*" "by the state board or other applicable state and federal agencies." (emphasis added), and is therefore not inconsistent with Health and Safety Code § 43021(a) and (b).

The second provision of Cal. Code Regs., tit. 13, §§ 2014(b) and 2015(b)(C) only applies to the situation where "the model year of the originally equipped engine is not able to be determined", which is also not inconsistent with Health and Safety Code § 43021(a) and (b), which define useful life periods based on "the model year the engine and emission control system are *first certified for use*" "by the state board or other applicable state and federal agencies," but do not specify what the relevant model year is if it is not possible to

determine what model year the engine (and associated emission control system) was first certified for use.

As CARB explained in the 15-day Notice of Public Availability of Modified Text and Availability of Additional Information, p. 40, and pp. 62-63, these regulatory sections are needed to ensure that CARB staff can determine the minimum useful life of trucks purchased that are not equipped with original engines, or when the original engine year cannot be determined, and "[t]he approach of using the vehicle model year less one year is consistent with common industry practice of installing engines with a model year one year prior to the model year of the vehicle it is placed in."

Comment [15d-124] (ACWA): "CARB should base its model year replacement requirement, for public fleets requesting exemption, on existing California statute which sets useful life for many MHD at 10-11 years. California Code of Regulations, Title 13 Section 2112(l) (California Code) provides useful life standards for MHD ICE vehicles through 2031 and beyond. Section 2013(n)(4), as written, unnecessarily prevents public water agencies from replacing ICE vehicles earlier than 13 years past model year, if needed. The 13 Year Replacement Requirement added to section 2013(n)(4) of the Proposed ACF appears to parallel the standard set in Senate Bill 1 Section 43021(a)(1)7 (SB 1) to set the useful life of MHD at 13 years. SB 1 prevents regulators from requiring California vehicle owners to retire, replace, retrofit, or repower their trucks within 13 years of the model year (or before the vehicle travels 800,000 miles). However, SB 1 does not require vehicle owners to retain MHD for 13 years. California Code more definitively frames useful life based on model year. Public water agencies must use their best engineering judgement to consider whether their existing fleet vehicles are performing, or need to be replaced to meet their fleets' operational needs while observing California Code. We therefore recommend that CARB replace all three instances of "ICE vehicle being replaced reaches 13 years old" on A-1-18 with "with ICE vehicles being replaced reflects Useful Life in California Code of Regulations, Title 13 Section 2112(l), or is no longer serviceable".

Response: No change was made in response to this requirement. The commenter correctly notes that CARB aligned its "useful life" requirements for existing ICE trucks with the chronological and operating periods specified in Health and Safety Code 43021(a) (SB 1) to ensure fleet owners are not required to retire, replace, or repower their vehicles during the periods of time or operation specified in Health & Safety Code § 43021(a).

The term "useful life" as specified in 13 CCR § 2112(l) is used in an entirely different context – namely, the period of time or operation that an original engine or vehicle manufacturer must demonstrate that its new engines or vehicles comply with applicable new engine or vehicle emissions standards in order to obtain an Executive Order from CARB authorizing the sale of such engines or vehicles in California. In other words, "useful life" in 13 CCR § 2112(l) refers to obligations on engine manufacturers, whereas Health and Safety Code § 43021(a) provides the purchasers of new vehicles assurance that they will not be required to retire, replace, or repower their vehicles for a specified period, and that is the concept applicable to the model year replacement issue.

E. Other State and Federal Obligations

Comment [018-WT2] [138-OT2](Procopio): As a broadband and cable provider, Charter is bound by Cal. Gov. Code § 53088.2(g), which states that "All video providers shall respond to a complete outage in a customer's service promptly. The response shall occur within 24 hours of the reporting of the outage to the provider, except in those situations beyond the reasonable control of the video provider. A video provider shall be deemed to respond to a complete outage when a company representative arrives at the outage location within 24 hours and begins to resolve the problem." Charter is also bound by state franchise contractual requirements that obligate it to comply with similar customer service response standards. (See Cal. Pub. Util. Code 5900(a) and 47 C.F.R. § 76.309). Similarly, as a telephony provider, Charter has specific time-limited emergency response requirements mandated by the California Public Utilities Commission, particularly related to emergency 911 services.

Response: No change was made in response to this comment. The commenter's contention that the ACF regulation "may" impair its obligations, as specified in Gov. Code § 53088.2(g), Pub. Util. Code § 5900(a) and 47 CFR § 76.309 to timely respond to service outages is based on its premise that the ACF regulation will necessarily create a scenario wherein the commenter has no means of timely responding to an outage location. That premise is unfounded, and because that premise is the crux of the commenters' legal argument, that argument also fails. First, the commenter has not established that the ACF regulation will deprive it of vehicles needed to respond to service outages. The record for this rulemaking establishes that currently 135 models of ZEVs, across all weight class categories, are commercially being produced and delivered to customers, and the market and availability of ZEVS is projected to only increase. *See e.g.*, FSOR at pp. 70-72, Appendix J to FSOR. Second, the ACF regulation does not compel any affected fleet to immediately retire any ICE trucks, but rather ensures that fleets can utilize such trucks for the useful life period as specified in Health and Safety Code § 43021(a). Third, the ACF regulation provides fleets compliance flexibilities, such as retaining non-ZEV trucks as backup vehicles, or to purchase ICE vehicles if a ZEV vehicle is not available in the needed configuration.

The commenter does not specify the "specific time-limited emergency response requirements mandated by the California Public Utilities Commission, particularly related to emergency 911 services" so CARB is unable to provide a specific response to that element of the comment.

V. Constitutional Issues

A. The Forced Phase-Out of Internal Combustion Engines Intrudes on the Constitutional Guarantee of Substantive Due Process.

Comment [45d-259] [15d-103] (Valero): The proposed ACF rule would render obsolete all businesses that operate in support of the internal combustion engine. CARB's stated public policy is the elimination of fossil fuels and renewable transportation fuels. Ultimately ACF would eliminate an entire industrial sector by displacing demand for oil production, petroleum pipelines and terminals, refineries, renewable fuels production facilities, tanker

trucks, oil change shops, and truck stops. Such a taking interferes with liberty interests protected under the California Constitution.

Response: No change was made in response to this comment. As a threshold matter, CARB disagrees with the fundamental premise of this comment, that the ACF regulation will "render obsolete all businesses that operate in support of the internal combustion engine." First, the ACF regulation does not prohibit the sale of all new vehicles powered by internal combustion engines, but rather establishes several exemptions allowing affected fleets to purchase certain vehicles powered by internal combustion engines, such as emergency and snow removal vehicles, heavy cranes, and military tactical vehicles. Furthermore, the ACF regulation permits the sale of new NZEVs, and NZEVs are anticipated to be powered by internal combustion engines. Also, the ACF regulation does not impose requirements on used medium or heavy-duty vehicles or light-duty package delivery vehicles, and consequently CARB expects existing medium and heavy-duty light-duty vehicles and light-duty package delivery vehicles that are powered by internal combustion engines to remain on California roads for years or decades. It should also be noted that the ACF regulation does not affect numerous other mobile applications of internal combustion engines, including the vast majority of non-road engines and vehicles, commercial harbor craft, nor other oil-consuming sectors. Indeed, CARB's analysis indicates that the fuel production and distribution industries are anticipated only to scale down proportionally to the decline in fuel demand from the medium- and heavy-duty vehicle fleet (a reduction in output for the petroleum and coal products manufacturing sector of less than 4% and about a 3% reduction in jobs by 2042, as described in the SRIA Table 51 and Table 50 and ISOR Tables 72 and 73). Consequently, it is clear that the commenters' premise that the ACF regulation will eliminate the need for all businesses that support ICEs is factually incorrect, because that premise is the crux of the commenters' legal arguments, those arguments also fail.

In addition, the comment cites to no legal authority for the proposition that a regulation that, at most, indirectly shifts some business (e.g., the fueling of vehicles) from one type of fuel to another constitutes a taking, much less describes the specific way in which ACF satisfies any established legal test for a regulatory taking.

Notwithstanding that response, CARB has responded to commenter's more specific takings-related comments below.

Comment [45d-259] [15d-103] (Valero): "The California Supreme Court has held that 'the constitutional guaranties of liberty include the privilege of every citizen to select those tradesmen he desires to patronize.' [citing *New Method Laundry Co. v. MacCann*, 174 Cal. 26, 32 (1916)]. ACF will intrude on this liberty interest by preventing California fleet operators from using ICEVs and effectively banning the infrastructure to support these vehicles. Under the California Constitution, substantive due process 'requires legislation not to be 'unreasonable, arbitrary or capricious' but to have 'a real and substantial relation to the object sought to be attained.' While California has an interest in limiting GHG and criteria pollutant emissions, ACF's arbitrary and exclusive selection of ZEVs is neither necessary nor rationally tailored to achieve this goal.

CARB lacks authority to ban oil and gas production and refinery industries and to force fleet owners to purchase vehicles they do not want and cannot afford because ACF is not rationally related to CARB's goal of reducing GHG and criteria pollutant emissions from

vehicles. As discussed above, low-carbon fuels and highly efficient ICEVs meeting the stringent requirements of the Heavy-Duty Truck Omnibus rule can achieve emissions reductions comparable to ZEVs on a shorter timeline. Low-carbon fuels like renewable diesel are compatible with existing vehicle infrastructure, from light- to heavy-duty long-haul vehicles. These fuels can *immediately* reduce transportation emissions without the significant delay and exorbitant cost required to build out electrical and hydrogen infrastructure, all without impairing liberty interests. As noted above, GHG emissions from a light-duty vehicle that runs on soybean-based renewable diesel has 25% less life cycle GHG emissions when compared to an EV, and this percentage is even greater for a vehicle that runs on waste-oil-based renewable diesel."

Response: No change was made in response to this comment. The Agency Response to the immediately preceding comment is hereby incorporated by reference into this response.

CARB disagrees with the comment, and notes that he commenter provides no support for its arguments. *New Method Laundry Co. v. MacCann* (1916) 174 Cal. 26, only involved fair competition and trade secrets between a laundry business and a former employee that was subsequently employed by a rival laundry business - nothing in that decision prohibits the State from limiting (or even prohibiting) the sale of products the State has determined are harmful under its police powers. Rather, it is clear that neither individuals nor businesses have a right to pollute or engage in actions that harm others and substantially threaten the public health and welfare, and such activities are subject to governmental restriction. *See, e.g.*, *Huron Portland Cement Co. v. Detroit,* 362 U.S. 440, 442 (1960) ["Legislation designed to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power."]; *Western Indem. Co. v. Pillsbury,* 170 Cal. 686, 694 (1915).

As California has long recognized, and as this rulemaking record demonstrates, emissions from on-road medium- and heavy-duty motor vehicles pose a substantial threat to the public health and welfare of Californians due to their criteria pollutant, GHG, and air toxic components. As discussed in Agency Response to Comment I.A., CARB expressly designed the ACF regulation to require affected fleets to purchase ZEVs, and that requirement constitutes an entirely rational response to address the harms posed from medium- and heavy-duty vehicles and light-duty package delivery vehicles, given that ZEVs emit *no* quantities of criteria pollutants, toxic air contaminants, or greenhouse gases in tailpipe emissions under any and all operational modes, which are therefore undeniably lower emitting than their ICE powered equivalents. Notably, the commenter does not address the emissions of criteria or air toxic pollutants from medium- and heavy-duty ICE-powered vehicles at all, which serves as a foundational objective to this rulemaking. Accordingly, the ACF regulation is demonstrably a reasonable and justifiable option that will directly help California to achieve its statutory mandates of achieving the maximum degree of emissions reductions of criteria and toxic air contaminants and greenhouse gas emissions from new and in-use vehicles in order to protect the public health and welfare; and those statutory mandates unquestionably reasonably relate to a proper legislative goals. *Coleman v Dept. of Personnel Administration*, 52 Cal.3d 1102, 1125 (1991).

CARB did consider a similar concept as the "Best Available Control Technology (BACT)" concept but rejected this alternative as explained in the Draft EA Chapter 7 D.3. The BACT concept suggests that using renewable fuels such as renewable natural gas (RNG) and renewable diesel (RD) will achieve additional GHG benefits. However, any requirement to use renewable fuels would not result in additional GHG benefits because low carbon fuels like RNG and RD are accounted for under California's Low Carbon Fuel Standard (LCFS) program and the federal Renewable Fuel Standard (RFS). (See Master Responses 4 and 5 in the Response to Comments on the Draft Environmental Analysis). Notably, ZEVs, when using grid electricity in California or renewably generated fuel, provide larger GHG reductions than conventional vehicles using low-carbon fuels, and liquid biofuel alternatives would not reduce air toxic emissions or vehicle NOx to the degree needed to meet the national ambient air quality standards, as ZEVs would. Lastly, CARB considered the economic impacts of the ACF regulation on labor, employment, and businesses in California. (See 15-Day Notice Appendix B Updated Costs and Benefits Analysis; Section X of the ISOR; SRIA and Form 399 Attachment, Proposed Amendments to the Advanced Clean Fleets Regulation.) The ACF regulation does not unlawfully impinge on the constitutional rights of businesses.

B. Dormant Commerce Clause

Comment [45d-259] (Valero): Under the Dormant Commerce Clause of the U.S. Constitution, state regulations may not impose burdens on interstate commerce that are clearly excessive in relation to the local benefits attained as a result of the regulation. [*Pike v. Bruce Church*, 397 U.S.137, 90 S.Ct. 844 (1970).] As home to the two largest ports in the United States, California plays a critical role in the distribution of international freight to and from the United States. Forty percent of all containerized imports and thirty percent of all U.S. exports flow through California ports. By imposing costly obligations on California drayage fleets and on broadly-defined high priority fleets to purchase ZE trucks that inevitably will be passed through to consumers and shippers, the proposed ACF rule will increase costs of consumer goods and will increase operating costs for shippers throughout much of the United States. Further, because the ACF rule requires replacement of Class 7-8 vehicles with ZE vehicles that rely on charging or fueling infrastructure that does not currently exist even within California and may never exist in other states that depend on interstate transport for receipt and shipment of goods, the rule has the potential to result in significant supply-chain disruptions throughout the United States, resulting in economic impacts far outweighing the purported local benefits to California.

Comment [15d-160] (Valero): "CARB attempts, through this regulation, to dictate the makeup of fleets that literally pass through California. CARB has no authority to regulate interstate commerce in this manner and should carefully consider the extraterritorial impacts and other Constitutional implications of such a provision, including but not limited to potential violations of the Dormant Commerce Clause, which prohibits state regulations that improperly discriminate against out-of-state commercial interests or that unduly burden interstate commerce."

Comment [45d-10] (Ellis): The commenter contends that the Commerce Clause limits California from severely impacting interstate commerce.

Response: No change was made in response to these comments.

Given the general nature of these comments, it is not possible to respond with specificity. Therefore, CARB provides the following general response.

The ACF Regulation Does Not Impermissibly Burden Interstate Commerce:

To the extent that the commenters assert that the ACF regulation impermissibly burdens interstate commerce, CARB disagrees with that assertion.

Article I, §8, cl. 3 of the United States Constitution states that Congress has the power "[t]o regulate Commerce among the several States." Courts have long recognized that this affirmative grant of power also includes an implicit or "dormant" limitation on the authority of states to affect interstate commerce. *Healy v. Beer Institute,* 491 U.S. 324, 326, fn 1 (1989).

The threshold issue to be resolved in a Commerce Clause challenge to a state law is whether Congress has exempted that law from Commerce Clause scrutiny. Congress' enactment of the CAA provisions allowing California to adopt and enforce new vehicle emission standards and other emissions-related requirements, and new and in-use nonroad vehicle and engine standards and emission-related requirements in §§ 209(b) and 209(e)(2)(A) of the federal CAA, respectively, clearly evidence Congress' intent to exempt California's motor vehicle and nonroad vehicle and engine standards and emission-related requirements from Commerce Clause restrictions.

Even if Congress did not exempt the ACF requirements at issue from Commerce Clause scrutiny, as demonstrated in greater detail below, those requirements are not inconsistent with the dormant Commerce Clause. In determining whether a state law violates the dormant Commerce Clause, a court first determines if the law is "designed to benefit in-state economic interests by burdening out-of-state competitors," *Department of Revenue of Ky. v. Davis*, 553 U.S. 328, 337–338 (2008), because concerns about economic protectionism "lies at the very core of [the Court's] dormant Commerce Clause jurisprudence," *Nat'l Pork Producers Council v. Ross*, 143 S. Ct. 1142, 1153 (2023) (cleaned up). The commenters do not claim that the ACF regulation is protectionist; nor could they do so.

The ACF requirements do not discriminate against either out-of-state competitors or interstate commerce because they only apply to medium and heavy-duty engines and vehicles, and light-duty vehicles used in mail and package delivery services that are owned or operated by (1) state or local government agencies with jurisdiction in California; (2) by entities meeting the criteria in the high-priority and federal fleet element of the ACF regulation, and to (3) the owners and operators of on-road heavy-duty drayage trucks operated at California seaports and intermodal railyards.

The requirements do not apply to medium and heavy-duty engines and vehicles, and light-duty vehicles used in mail and package delivery services or to on-road heavy-duty drayage trucks that are operated outside of California.

Given the absence of any even arguable protectionism, the commenters "begin in a tough spot." *Id.* Indeed, the *Pike* balancing test for undue burdens on interstate commerce that commenters invoke also serves the anti-discrimination purposes of the doctrine as a whole. *Id.* at 1157. The commenters arguments here thus "fall[] well outside *Pike*'s heartland." *Id.* at 1158. Moreover, as the Supreme Court has observed, state regulations frequently pass

muster under the Pike test. *Department of Revenue of Ky. v. Davis,* 533 U.S. 328, 339 (2008). And courts will accord a greater presumption of validity to a state's laws in the field of safety. *Pike,* 397 U.S. 137, 143.

Courts recognize that preventing air pollution is and has been a traditional local safety concern. *Huron Portland Cement Co. v. Detroit,* 362 U.S. 440, 445-446 (1960). This recognition is also expressed in the federal CAA section 101(a)(3), where Congress declared that states and local governments are primarily responsible for preventing air pollution, and in California H&SC sections 39000 and 39001, where the California legislature declared a strong public interest in controlling air pollution to protect the "health, safety, welfare, and sense of well-being" of Californians.

As documented in the record for this rulemaking action: the affected categories of medium and heavy-duty trucks and light-duty vehicles used in mail and package delivery services are significant sources of criteria pollutants, toxic air contaminants, and GHGs (including short-lived climate pollutants). The ACF regulation's requirements establish requirements to reduce the quantities of such air pollutants and are therefore an important element of CARB's strategy to reduce such emissions. These considerations establish that this regulation serves the legitimate public purpose of protecting the health and welfare of California's residents, which purpose "clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power." *Huron Portland Cement Co.,* 362 U.S. at 442.

If a court determines that the justifications for a state safety-based regulation are not illusory, as it would likely find in this case, it will accord the regulation significant deference. *Raymond Motor Transportation v. Rice,* 434 U.S. 429, 449 (1978) (Blackmun, J., concurrence). In addition, the ACF requirements at issue here do not unduly burden interstate commerce because the requirements only apply to vehicles that are sold and /or used in California, so that the entirety, or vast majority of the associated compliance costs will likely be passed by manufacturers to onto California consumers. Nothing in the ACF regulation requires a truck to stop at the border between States or otherwise impedes the flow of interstate commerce. Moreover, as discussed in the immediately preceding paragraph, the ACF requirements provide significant benefits to California because they will limit and reduce the levels of emissions of harmful pollutants that are emitted by medium and heavy-duty vehicles and light-duty vehicles used in mail and package delivery services. These considerations demonstrate that the ACF requirements do not impose a burden on interstate commerce that clearly exceeds its benefits of protecting the health and welfare of California's residents.

Comment [45d-259] (Valero): "Additionally, the Dormant Commerce Clause precludes states from directly or indirectly regulating commerce outside their own borders. [*Healy v. Beer Institute, Inc.*, 491 U.S. 324,109 S.Ct. 2491(1989).] This principle is fundamentally incompatible with CARB's overt aim to force a nationwide transition of the medium- and heavy-duty vehicle market to ZE, both through direct and indirect control over out-of-state transactions and through its collective market share of new vehicle sales when combined with Section 177 states expected to adopt its standards. According to the ISOR, 'The proposed ACF regulation is necessary to ensure California leads the nation in a shift to ZE …' Indeed, by way of example, the ACF requires 'high priority fleets' with at least one qualifying vehicle operating in California -and the remainder necessarily operating outside California's borders - to comply with the rule and replace ICE vehicles operating in California with ZE vehicles at

the end of their purported 'useful life.' While the precise definition of 'operating' in this context is unclear, the rule would presumably implicate fleets housed but that do business with and travel to/from California, such that a 50-vehicle fleet in Phoenix, Arizona, Las Vegas or Reno, Nevada, or even Tijuana, Mexico would ultimately be required to replace its existing ICE vehicles with ZE vehicles to continue doing business in California. And if such fleets do not have specific California-designated vehicles to conduct such travel in and out of the state, then the rule would appear to require the entire fleet to comply with its replacement requirements, despite residing beyond state or even national borders. Clearly this level of regulation constitutes an overreach of authority and impermissibly regulates interstate commerce. In addition, the rulemaking aims to regulate out-of-state transactions by, among other things, requiring out-of-state companies who hire and direct third-party vehicles to undertake additional measures to verify third party compliance and by requiring the manufacture of new ZE vehicles in lieu of ICE vehicles by predominantly out-of-state automobile manufacturers. This is further intended, by Executive Order, to force 'a transition away from fossil fuels' which ultimately has the effect of regulating businesses and industries that operate predominately beyond California's borders – e.g., oil and gas, petrochemicals, manufacturing, and agriculture. The proposed ACF therefore both directly and indirectly controls out-of-state conduct and runs afoul of the extraterritoriality principle of the Dormant Commerce Clause."

Response: No change was made in response to this comment.

The response to the immediately preceding comment is incorporated in this response. As a threshold matter, this comment illustrates the commenter's misunderstanding of the fundamental requirements of the fleet purchaser elements of the ACF regulation. While the ACF regulation's applicability provision does apply to entities that own and operate 50 or more vehicles, the regulation only requires those fleets to add or remove vehicles from their "California fleets" – defined, in pertinent part, as "the subset of vehicles, including those under common ownership or control, in the total fleet operated by a fleet owner or controlling party *in California* during a calendar year. …" Cal Code Regs., title 13, § 2015(b) (emphasis added). Nothing in the ACF regulation "prevent[s] out-of-state firms from undertaking competitive pricing or deprive[s] businesses and consumers in other States of whatever competitive advantages they may possess." *Nat'l Pork Producers Council v. Ross*, 143 S. Ct. 1142, 1155 (2023) (describing *Healy*) (cleaned up).

Comment [15d- 132] (Knight-Swift): An added section of the draft regulation – 2015(r) – states that ICE (internal combustion engine) vehicle additions to the California Fleet after January 1, 2024, must meet California emissions certification requirements. This new part of the rule goes against decades of interstate commerce allowance for EPA-only certified trucks. Knight-Swift firmly believes this seemingly small but impactful addition to the ACF rule is out-of-scope for the ZEV intentions of the overall rule... Further, the industry has not been given adequate notice of this very impactful change and such changes should be handled in Truck and Bus level regulations with appropriate lead times and change notice

Comment [15d-138] (CTA and ATA): The proposed 15-day language (13 CCR § 2015(r)) goes beyond California's authority to control vehicles purchased, domiciled and operated outside the state. Some of these types of vehicles will need to be counted as part of the

"California fleet" due to their operations within California (i.e., Arizona-based trucks that pick-up and deliver into California). This new requirement exceeds California's authority by improperly applying CARB standards to vehicle sales occurring in other states.

Response: No change was made in response to these comments. The comments are premised on the assumption that 13 CCR § 2015(r) applies to new vehicles that are purchased outside of California. That premise is incorrect because the text of 13 CCR 2015(r) specifies that it only applies to vehicles added to the California fleet, which is defined as a subset of an affected fleet's vehicles that are operated in California by a fleet owner or controlling party during a calendar year; the proposed text does not compel affected fleet owners to purchase California-certified ICE vehicles out-of-state.

1. The ACF Regulation would unconstitutionally burden commerce for the US Postal Service

Comment [45d-256] [OT1-105] [WT1-025] (NSRMCA): The ACF regulation will require companies that contract with the U.S. Postal Service to make significant and potentially impractical changes to their operations that would have "serious consequences" for the interstate commerce facilitated by the United States Postal Service.

Response: No change was made in response to this comment. This comment states that the ACF regulation will require companies that contract with the U.S. Postal Service to make significant and "potentially" impractical changes to their operations, and that such changes would have "serious consequences" to interstate commerce. However, CARB notes that because the majority of affected fleets presumably use medium- and heavy-duty vehicles to transport goods, it is not aware of any distinction between packages and mail and other commercial goods that would impose requirements on companies that contract with the U.S. Postal Service that are distinct from the requirements from other fleets that similarly provide competing services, i.e., USPS or Federal Express.

Notwithstanding that response, please see the Agency Responses to Comment V.B.

2. The ACF Regulation Cannot Prevent Out-of-State Trucks From Entering California

Comment [45d-002] (Sonnefeld): "[You can not stop vehicles from other states from driving in California so if I had a big company I just move it to Arizonia [sic] or Nevada and keep doing buisness as usual because under the interstate commerence clause your regulation would have no affect."

Comment [45d-005] (Hison): "You can't control trucks in other states so what do you do when one shows up at the border into the state? Deny them entry? Have them no longer deliver here?"

Response: No changes were made in response to these comments. These comments are premised on the supposition that the ACF regulation would prevent out-of-state vehicles from travelling into or through California – it does not. Rather, the regulation establishes requirements applicable to specified fleet operators that own, operate, or direct the operation of specified vehicles in California and that also meet specified criteria.

Consequently, no response is required. Notwithstanding that response, to the extent the comments assert that the ACF regulation impermissibly burdens interstate commerce, see the Agency Responses to Comment V.B.

C. Taking of Vested Rights of Fuel Companies

1. Vested Rights of a Variety of Fossil Fuel, Renewable Fuel and Internal Combustion Engine Businesses

Comment [45d-259] (Valero): "The ACF rule raises significant concerns over the vested economic interests of a variety of California businesses. California courts have held that businesses have 'the right to continue operating an established business in which he has made a substantial investment.' The proposed ACF rule would deprive a multitude of established large and small businesses of this right.

Vested rights are rights that are 'already possessed' or 'legitimately acquired' [*Harlow v. Carleson*, 16 Cal. 3d 731, 735 (1976).] California courts have recognized both vested rights in economic interests (ability to continue operation of a business) and the vested rights doctrine as it relates to land use development (ability to develop land in accordance with a valid government authorization). In addition, where the real property is legitimately acquired, the business activity is 'undertaken in accordance with applicable statutory mandates," and the right has a "potentially massive economic aspect' then, "certainly a fundamental vested right is at issue." [*The Termo Co. v. Luther*, 169 Cal. App. 4th 394, 407 08 (2008) (Finding a fundamental vested right where the Director of Conservation ordered the plugging of 28 oil wells that had been lawfully in operation for over 20 years).] When these types of rights are at stake, they are considered too important to be relegated to 'exclusive administrative extinction.' [*Id.* at 406 (citing *Goat Hill Tavern*, 6 Cal. App. 4th at 1526).] Courts have been careful to require more than economic burden by way of increasing the cost of doing business and instead have looked to protect economic interests where a company will be driven out of business or forced to operate at a loss and close. *[Mobil Oil Corp. v. Superior Court*, 59 Cal. App. 3d 293, 305 (1976), *Standard Oil Co. v. Feldstein*, 105 Cal. App. 3d 590, 604 (1980), *San Marcos Mobilehome Park Owners' Ass'n v. City of San Marcos*, 192 Cal.App.1492, 1502].

Similarly, the Takings Clause of the Fifth Amendment to the U.S. Constitution, made applicable to the states through the Fourteenth Amendment, provides: '[N]or shall private property be taken for public use, without just compensation.'

Here, the ACF rule has the ultimate goal of limiting all MD/HD vehicles sales to ZEVs and establishes a timeline for ICEV extinction in order to eliminate use of fossil and renewable fuels for transportation. It is evident that the proposed ACF rule would foreclose opportunities for numerous large and small businesses that have lawfully operated in the state of California for decades and have invested heavily in their operations within the state. The shutting down of these businesses will have a potentially massive economic impact and therefore represents an unconstitutional deprivation of vested rights under California law as well as an unconstitutional taking under the U.S. Constitution."

Response: No change was made in response to this comment.

CARB's response to Comment V.A is incorporated by reference into this response.

CARB disagrees with the commenter's assertion that the ACF regulation effects a "taking" of protected interests of the fossil fuel and renewable fuel industries. The ACF regulation does not eliminate the sale of ICE powered vehicles or require fossil fuel or renewable fuel industries to cease sales of their product, so to the extent the commenter is basing its comment on these presumed regulatory requirements, this comment is beyond the scope of this rulemaking.

CARB disagrees that the ACF regulation will preclude operation of any lawful business or substantially interfere with the ability of any businesses or real property owners to make economically viable use of, derive income from, or satisfy reasonable, investment-backed profit expectations with respect to their property. Notably, neither individuals nor businesses have a right to pollute or engage in actions that harm others and substantially threaten the health public health and welfare. Such activities are subject to governmental restriction. *Huron Portland Cement Co. v. Detroit,* 362 U.S. 440, 80 S.Ct. 813, 815, 4 L.Ed.2d 852, 855 (1960). "Legislation designed to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power"; *Western Indem. Co. v. Pillsbury,* 170 Cal. 686, 694 (1915). With respect to the entities directly regulated, vehicle manufacturers may continue to manufacture vehicles so long as their vehicles comply with applicable emission standards and other emissions-related requirements, including requirements that such vehicles emit no criteria, toxic air pollutant, or greenhouse gases in exhaust emissions, and affected fleets may continue to acquire new vehicles provided they satisfy specified applicable emission standards and other emissions-related requirements, including requirements that such vehicles emit no criteria, toxic air pollutant, or greenhouse gases in exhaust emissions. Entities that are indirectly affected by the ACF regulation are not precluded from conducting any lawful business. While markets for certain indirectly-affected businesses may change, leading some market participants to change or eliminate their activities, such responses are not compelled by the ACF regulation.

CARB considered the potential economic impacts of the ACF regulation and determined it will not substantially interfere with refinery options in a manner as to require these facilities in California, many of which have been operating for years, to close. Markets remain elsewhere for the products of refineries. As described in the SRIA and Final Economic Impact Statement, Form 399 Attachment, for the ACF regulations, the petroleum and coal products manufacturing sector is predicted to experience a reduction in growth of less than 4% and about a 3% reduction in jobs by 2042, as described in the SRIA Table 51 and Table 50 and ISOR Tables 72 and 73. This is not a substantial deprivation of the ability of owners of existing property in the petroleum industry to make economically viable use of their property, derive income from it, or realize investment-based profit from the property.

Comment [45d-259] (Valero): Likewise, the proposed ACF rule seeks to displace the renewable fuel industry. Not only have renewable fuels businesses been conducting operations within the state, but the state and CARB have actively encouraged substantial investment and growth of such businesses in recent years through the LCFS. It would be an unconstitutional deprivation of vested rights and unconstitutional taking of the substantial and unrealized investments made in response to the federal Renewable Fuel Standard and

the California LCFS to now drastically undercut the market for and ultimately eliminate such businesses altogether.

Response: No change was made in response to this comment.

The Agency Response to the immediately preceding Comment is incorporated by reference into this response.

The ACF regulation is not expected to displace the entire renewable fuel industry, since that industry has multiple viable avenues to operate, and is expected to continue doing so. Due to the long life of medium- and heavy-duty vehicles, and the amount of interstate traffic, even after the full implementation of the ACF Regulation, about half of these trucks operating on California's roadways will still be combustion. Further, the ACF regulation was enacted to reduce and to eliminate emissions generated from affected medium and heavy-duty vehicles and light-duty package delivery vehicles, not to displace the renewable fuel industry. Moreover, the ACF regulation allows affected entities to purchase NZEVs if desired ZEVs are not commercially available, or to purchase ICE vehicles in certain circumstances. Furthermore, to the extent that this comment asserts that CARB's establishment of the ACF regulation discourages the industry's investment in renewable fuels, it is incorrect, because the comment overlooks the fact that the LCFS regulation incentivizes the use of both electricity and hydrogen, by providing entities that supply such fuels the opportunity to generate LCFS credits. Cal. Code Regs., tit. 17, §§ 95483(b)(E) and 95483(c). The commenter cites *Mobil Oil Corp. v. Superior Court,* 59 Cal.App.3d 293, 305 (1976) to support its general assertion that fundamental vested rights are impacted when rules effectively drive companies out of business. But as the quoted passage shows, even this supports the ACF regulation by recognizing that the right to clean air outweighs any "right" to pollute where a regulation does not "effectively drive the Oil Companies out of business [but a]t most … puts an economic burden on them increasing the cost…." The record does not establish that the ACF regulation will drive renewable fuel producers out of business or force them to close, nor does the commenter provide any such evidence beyond speculation.

2. ACF's Forced Conversion of Trucks to EV's Constitutes Unconstitutional Taking of Property Rights of Fleet Owners

Comment [45d-2] (Sonnefeld): "You can not take property without compensation so attempting to force conversion to EV vehicles without conpensation is unconstitutional under the 14 amendment."

Comment [15d-11] (Cuzman): HAVE YOU EVER HEARD OF THE U.S CONSTITUION? YOU CANNOT JUST TAKE PEOPLES BELONGINGS FOR NO REASON. CO2 EMMISIONS ARE NOT A REASON TO TAKE PEOPLE TRUCKS AND BUSINESS AND LEAVE THEM HOMELESS."

Response: No change was made in response to these comments.

The Agency Response to Comment V.C.1 is incorporated by reference into this response.

CARB disagrees with the commenter's assertion that the ACF regulation effects a "taking" of the protected interests of affected fleets. The ACF regulation does not eliminate the resale of ICE powered vehicles or require fleets to immediately replace existing ICE powered trucks

with ZEVs, but rather ensures that fleets are able to continue operating existing trucks for a period of usage as specified in state law, so to the extent this comment is based upon a misunderstanding of the Regulation's regulatory requirements, this comment is beyond the scope of this rulemaking. Moreover, as explained in the Agency Response to Comment V.C.3, the ACF regulation does not constitute an unconstitutional taking of affected fleet's interests in their existing trucks.

3. California Health and Safety Code § 43021(a) Constitutes a Taking

Comment [45d-259] (Valero): "[T]he arbitrary selection by CARB of 13 years or 800,000 miles traveled as a vehicle's useful life would in many circumstances require businesses to prematurely retire and replace valuable assets without any form of compensation and on the contrary, at great expense which likewise constitutes a deprivation of vested rights and an unconstitutional taking."

Response: No change was made in response to this comment. CARB disagrees with the commenter's assertion that the ACF's requirement to require affected fleets to retire ICE vehicles after a specified minimum useful life constitutes a regulatory taking of fleets' vested property rights. As a threshold matter, CARB notes the specified minimum useful life period is entirely consistent with the provisions of California Health and Safety Code § 43021(a).

The "Takings Clause" of the Fifth Amendment to the United States Constitution prohibits the federal government from taking private property for public use, without just compensation. This prohibition extends to states by the Fourteenth Amendment to the United States Constitution.[59] Governmental regulatory actions that require an owner to suffer permanent physical invasions of his or her property, or that completely deprive an owner of all economically beneficial use of his or her property will generally will be deemed per se takings for Fifth Amendment purposes. *Lingle v. Chevron U.S.A. Inc.*, 544 U.S. 528, 538 (2005). Courts evaluate whether regulatory actions that extend beyond the abovementioned categories and the special context of land-use exactions constitute regulatory takings using the standards set forth *in Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (1978) (*Penn Central*). In that case, the United States Supreme Court identified factors that courts must consider in evaluating whether a regulatory taking has occurred, including the regulation's economic impact on the claimant, "the extent to which the regulation has interfered with distinct investment-backed expectations", *Lingle*, 544 U.S. 528, 539, and the character of the governmental action – i.e., "whether it amounts to a physical invasion or instead merely affects property interests through "some public program adjusting the benefits and burdens of economic life to promote the common good." 544 U.S. 528, 539 (quoting 438 U.S. 104, 124). The *Lingle* court further stated that each of the above-mentioned inquiries "aims to identify regulatory actions that are functionally equivalent to the classic taking in which government directly appropriates private property or ousts the owner from his domain. Accordingly, each of these tests focuses directly upon the severity of the burden that government imposes upon private property rights."

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[59] The U.S. Supreme Court applied the Takings Clause of the Fifth Amendment to the States through the Fourteenth Amendment Due Process Clause in Chicago Burlington and Quincy R.R. v. City of Chicago, 166 U.S. 226 (1897).

In accordance with the above-mentioned Supreme Court decisions, it is clear that this rulemaking action cannot be considered a regulatory taking of fleets' property rights in their ICE vehicles. This rulemaking does not effect a per se taking because it neither causes fleets to suffer a permanent physical invasion nor does it completely deprive fleets of the commenter of all economically beneficial use of said vehicles, but rather ensures that owners that purchase qualifying vehicles will be able to operate them without needing to retire, replace, retrofit, or repower them during their minimum useful life periods.

The ACF regulation also does not rise to a regulatory taking under the *Penn Central* factors because, among other reasons, fleets cannot establish that the rulemaking has interfered with any reasonable investment-based expectation to operate ICE vehicles forever, especially given the existence of Health and Safety Code § 43021(a).

D. CARB Cannot Regulate Federal Agencies

Comment [45d-259] (Valero): Additionally, by targeting federal fleets as high-priority fleets subject to ACF's accelerated schedule for retirement and replacement of vehicles, CARB oversteps its authority in a manner that may conflict with requirements under federal procurement laws. To the extent the federal government complies with the rule's requirements, the increased capital costs to procure new ZEV vehicles will be borne by taxpayers nationwide, not just those in California. Similarly, if federal fleets such as the U.S. postal fleet operating in California experiences delays and bottlenecks due to inability to procure vehicles timely or at all, the rule may result in nationwide impacts due to delays in mail receipt and delivery.

Comment [45d-2] (Sonnefeld): Under federalism you cannot force the federal agencies to do anything.

Response: No change was made in response to these comments. The commenters states that the ACF regulation "may" conflict with federal procurement laws, but fail to specify the procurement laws that allegedly conflict with the ACF regulation, so CARB is unable to specifically respond to this comment. Notwithstanding that response, CARB is not aware of any federal procurement laws with which the ACF regulation would interfere, and further notes that Congress has clearly expressed its intention that federal agencies must comply with state air pollution requirements in the same manner, and to the same extent, as any nongovernmental entity.

Specifically, CAA § 118(a) provides, in pertinent part, that:

> Each department, agency, and instrumentality of the executive, legislative, and judicial branches of the Federal Government (1) having jurisdiction over any property or facility, or (2) engaged in any activity resulting, or which may result, in the discharge of air pollutants, and each officer, agent, or employee thereof, *shall be subject to, and comply with, all Federal, State, interstate, and local requirements, administrative authority, and process and sanctions respecting the control and abatement of air pollution in the same manner, and to the same extent as any nongovernmental entity.*

Congress initially enacted § 118 in the 1970 Amendments to the Clean Air Act, 84 Stat. 1689-1690 (1970) to "declare the clear and unequivocal policy of the United States that the facilities, real and personal property, owned by the U.S. Government were to comply with all

substantive and procedural requirements of Federal, State, interstate or local law intended to control air pollution. The same policy was to apply to facilities leased or operated by the Federal government." H.R. Rep. No. 294, 95th Cong., 1st Sess. 197-198 (1977). However, in 1976, the U.S. Supreme Court held that CAA § 118 did not clearly waive sovereign immunity of the federal government from state air pollution permitting requirements. *Hancock v Train*, 426 U.S. 167,198-199 (1976).

Congress accordingly amended § 118 in enacting the 1977 Amendments to the Clean Air Act to "to overturn the Hancock case and to express, with sufficient clarity, the committee's desire to subject Federal facilities to all Federal, State, and local requirements— procedural, substantive, or otherwise—process, and sanctions." H.R. Rep. No. 294, 95th Cong., 1st Sess. 199 (1977). Congress also noted that other provisions of § 118 allow the President to grant exemptions, on a case-by-case basis, from compliance with the requirements, but stated that such exemptions were to be narrowly construed to property that was "uniquely military in nature" – "[t]his rulemaking exemption authority could, for example, be applied to combat aircraft or tanks, but could not be applied to military power plants *or sedans,* the function or use of which does not differ markedly from nonmilitary powerplants *or sedans*." *Id.* at 200-201.

In response to the commenter's concern regarding the possible inability to procure, or delays in procuring needed vehicles, the ACF regulation does establish numerous exemptions and extensions for circumstances that prevent fleets from acquiring vehicles for reasons beyond their control.

1. The U.S. Postal Service

Comment [45d-228] (USPS):

As set forth in the Postal Reorganization Act, [*See, e.g.*, Postal Reorganization Act, P.L. 91-375 (Aug. 12, 1970), § 2 (requiring the Postal Service "have as its basic function the obligation to provide postal services to bind the Nation together through the personal, educational, literary and business correspondence of the people" and to "provide prompt, reliable, and efficient services to patrons in all areas."], the Postal Accountability and Enhancement Act, [*See, e.g.*, Postal Accountability and Enhancement Act, P.L. No. 109-435 (Dec. 20, 2006), § 201(b) (establishing postal rate system that requires that market dominant products "maintain high quality service standards" and "maximize incentives to reduce costs and increase efficiency.")] and the Postal Service Reform Act, [*See, e.g.*, Postal Service Reform Act, P.L. No. 117-108 (Apr. 6, 2022), § 202 (requiring that "the Postal Service shall maintain an integrated network for the delivery of market-dominance and competitive products [and] delivery shall occur at least six days a week."], the Postal Service is subject to a Universal Service Obligation, which requires it to deliver to 163 million addresses nationwide, in all climates and topographies, at least six days per week. This Universal Service Obligation must be self-supporting based on a system of fair and reasonable rates and fees. [39 U.S.C. § 403(a).]

The commenter states that if it cannot qualify for a sufficient number of extensions or exemptions needed to comply with the ZEV Milestone option, it would need to remove ICE vehicles from its fleet, which would "degrade service standards nationwide, violate its

Universal Service Obligations, and create a severe conflict between the CARB Rule and the multiple federal laws governing postal operations."

The commenter also states that subjecting the Postal Service to penalties "whether imposed or threatened, for maintenance of postal operations would pose yet another potential conflict between the Proposed Rule and the federal laws governing postal operations."

Response: No change was made in response to this comment. As a threshold matter, CARB disagrees with the commenter's contention that the ACF regulation could adversely affect the Postal Service's nationwide service standards, given that the regulation only vehicles operated in California by affected entities. *See* Agency Response to Comment V.B.2. Moreover, the commenter has not explained in any detail why it would be unable to comply with the gradual phased-in requirements.

As explained in Agency Response to Comment V.D, Clean Air Act (CAA) § 118 requires federal agencies to comply with state air pollution requirements "in the same manner, and to the same extent as any nongovernmental entity". The bills and statues cited by the commenter do not establish that Congress expressly or impliedly preempted the on-road vehicles owned or operated by the USPS for package delivery services from emissions standards or emissions-related requirements enacted by CARB.

E. Other Constitutional Provisions

Comment [45d-259] (Valero): Finally, the proposed ACF rule may violate other Constitutional provisions. These include, but likely are not limited to, the equal sovereignty doctrine, which precludes the disparate treatment of the states by the federal government, and the dormant foreign affairs preemption doctrine under the Supremacy Clause, which preempts state laws that intrude on the exclusive federal power to conduct foreign affairs. Because the proposed ACF rule is unprecedented in its scope and reach, CARB should pause further rule development pending legal review to confirm that its actions are authorized under state law and that they are not preempted or precluded as a matter of Federal law.

Response: The comment implies the ACF regulation may violate other Constitutional provisions including the dormant foreign affairs preemption and the equal sovereignty doctrine, but does not specifically explain how these doctrines could bar the ACF regulation, but rather just notes they "may". CARB disagrees, noting that the ACF only regulates vehicles sold or used in California, and regulates vehicle manufacturers evenhandedly without regard to their location, and addresses traditional state responsibilities (namely the reduction of harmful air pollution and the products sold in the State).

VI. Miscellaneous

Comment [018-WT2] [138-OT2] (Procopio): The commenter stated that EPA proposed new rules for GHG on April 7, 2023, and is asking to reopen the public comment period for ACF to consider the implications of this proposed national mandate on the ACF requirements.

Response: No change was made in response to this comment, and CARB declines to reopen the public comment period to allow for comment s on the implications of a *proposed* federal rule (which, to CARB staff's understanding, does not mandate adoption rates of any particular technologies). This comment is not specifically directed at either the regulation or to the procedures followed by CARB in proposing or adopting the regulation, and accordingly does not require a response.