Table V-4: Fleetwide Penetration Levels for Selected Technologies, MYs 2024-2031

	2024	2025	2026	2027	2028	2029	2030	2031
Advanced gasoline engines								
No Action	37.0	28.4	22.9	17.7	12.9	6.7	2.7	1.9
Alt. 1	-	-	-	+2.0	+5.1	+8.9	+11.5	+12.4
Alt. 2	-	-	-	+2.0	+5.1	+8.9	+11.5	+12.4
Alt. 3	-	-	-	+1.9	+5.0	+7.9	+10.4	+11.1
12V Micro Hybrid (SS12V)								
No Action	63.0	52.6	38.7	27.8	17.9	12.8	8.4	6.2
Alt. 1	-	-	-	+5.9	+13.9	+18.9	+22.6	+24.5
Alt. 2	-	-	-	+5.9	+13.9	+18.9	+22.6	+24.5
Alt. 3	-	-	-	+4.2	+12.2	+16.3	+20.0	+21.8
SHEV								
No Action	10.4	24.5	40.6	53.3	62.4	71.7	76.7	80.2
Alt. 1	-	-	-	-7.1	-13.9	-21.3	-25.4	-27.8
Alt. 2	-	-	-	-7.1	-13.9	-21.3	-25.4	-27.8
Alt. 3	-	-	-	-5.4	-12.1	-18.5	-22.6	-24.9
PHEV								
No Action	2.9	2.8	5.4	5.5	7.3	7.3	7.3	7.3
Alt. 1	-	-	-	0.0	-1.8	-1.8	-1.8	-1.8
Alt. 2	-	-	-	0.0	-1.8	-1.8	-1.8	-1.8
Alt. 3	-	-	-	0.0	-1.8	-1.8	-1.8	-1.8

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As the table shows, the analysis projects that manufacturers attempting to meet the No-Action Alternative standards without the use of EVs or PHEVs in charge-depleting mode results in a significant penetration of strong hybrid vehicles. Even then, the CAFE Model shows that manufacturers will fail to comply with the No-Action Alternative standards at the fleet level by more than 1 mile per gallon. Under all three alternatives, manufacturers can continue using gasoline engines throughout the years covered by the standards compared to the baseline, and the strong hybrid vehicle penetration rate drops by almost 28 percent by 2031 compared to the baseline. There is still some PHEV penetration by 2031, as those vehicles' gas-only (charge-sustaining) fuel economy values essentially amount to a strong hybrid vehicles' fuel economy value, but the penetration rate decreases marginally in each regulatory alternative compared to the baseline. NHTSA expects that the penetration of SS12V technology will drop from its high in MY 2024 as more effective hybridization technology can be applied in response to the standards and as manufacturers respond to revised standards set without considering OC technologies.

Given that NHTSA's analysis shows significant penetration rates for strong hybrid vehicles by MY 2031, the agency also believes it is appropriate to consider not just potential consumer acceptance issues associated with that technology, but also the technologies that may be set aside by manufacturers to pursue additional technology that consumers would prefer. NHTSA has performed this same analysis in prior rules. Because NHTSA has again determined that no consumer choice model satisfactorily predicts future behavior for the agency's purposes (see the detailed discussion of this in Section II.E), the following analysis remains a qualitative one.

It is important to note that NHTSA's consideration of consumer demand as relevant to economic practicability has been upheld by the D.C. Circuit in *Center for Auto Safety* v. *NHTSA,*[481] in which the court highlighted the broad discretion that Congress granted the agency in setting fuel economy standards. In the court's assessment, ''Congress clearly contemplated that consumers would benefit from the flexibility accorded to the manufacturer by a system of fuel economy standards, which [Senate Report 94–179] predicted 'should result in a more diverse product mix and wide consumer choice.' '' [482] The court also identified what might be deemed guardrails to NHTSA's consideration of consumer demand: ''it would clearly be impermissible for NHTSA to rely on consumer demand to such an extent that it ignored the overarching goal of fuel conservation. At the other extreme, a standard with harsh economic consequences for the auto industry also would represent an unreasonable balancing of EPCA's policies.'' [483]

NHTSA's last assessment of consumer demand for strong hybrid vehicles occurred in the 2020 final rule, when the agency determined that demand for

[481] *Ctr. for Auto Safety* v. *Nat'l Highway Traffic Safety Admin.,* 793 F.2d 1322 (D.C. Cir. 1986).

[482] *Ctr. for Auto Safety* v. *Nat'l Highway Traffic Safety Admin.,* 793 F.2d 1322, 1338 (D.C. Cir. 1986).

[483] *Ctr. for Auto Safety* v. *Nat'l Highway Traffic Safety Admin.,* 793 F.2d 1322, 1340 (D.C. Cir. 1986).

strong hybrid vehicles was closely linked to fuel prices.[484] In 2020, the agency observed that strong hybrids were able to capture additional market share when fuel prices were at or above $3.50 per gallon, but the agency did not expect fuel prices to return to that level for quite some time pursuant to then-current projections. At that point, the agency determined that the significant levels of strong hybrid penetration rates were dependent on consumer acceptance, and for manufacturers to achieve similar fuel economy levels with non-hybrid technologies would increase compliance costs. NHTSA concluded that those higher costs could have implications for the vehicle sales response, vehicle retirement rates in the existing vehicle population, and the penetration rates of emerging safety features.

Since 2020, the production share of strong hybrid vehicles has more than doubled,[485] while gasoline prices have also increased. In April 2020, when NHTSA published the 2020 final rule retail gasoline prices averaged $1.94 a gallon; prices peaked in summer 2022 at $5.03 a gallon and have stabilized around $3.00 to $3.20 per gallon since October 2024.[486] NHTSA's fuel price projection assumes that prices will generally remain around that level through 2050, briefly dipping below $3.00 per gallon in 2028 but rising again by 2033. Whether those prices remain correlated with strong hybrid market share in the real world remains to be seen. NHTSA's central analysis shows strong hybrid penetration rates more than doubling from MY 2024 to MY 2025 and then increasing by another 16 percentage points from MY 2025 to MY 2026. As discussed above, this modeling result is driven by the extremely aggressive MYs 2024–2026 standards in the baseline that occur prior to the proposed reset standards beginning in MY 2027. From MYs 2027–2031, strong hybrid penetration rates increase slightly and essentially plateau by MY 2031. That said, NHTSA's analysis describes just one potential pathway that manufacturers could use to comply with the proposed standards, and the agency expects actual compliance pathways will likely be different. Data shows that strong hybrid penetration rates have yet to increase at greater than approximately 5 percentage points year over year.[487] Accordingly, NHTSA intends that strong hybrid vehicles remain an option but not a mandate; while the agency expects that manufacturers will continue providing strong hybrids to gasoline-price-conscious consumers, manufacturers should ultimately comply with standards in the way that they see fit, consistent with responding to the needs and preferences of consumers.

While the differences in technology penetration rates between the alternatives are small compared to changes between the baseline and alternatives, examining the effect of the technology required by different regulatory alternatives on manufacturers' compliance positions is more instructive. In terms of how this technology application in response to standards influences manufacturer compliance positions, this action is unique in that the 2022 and 2024 standards incorporated into the baseline result in excessive fuel economy technology application in years prior to the standard setting years, and that technology carries through to MY 2031. This results in over-compliance for some manufacturers' fleets; however, over-compliance for some manufacturers' fleets is not indicative that the proposed standard is not maximum feasible. NHTSA must set industry-wide standards, considering the capabilities of all manufacturers. All manufacturers struggle to comply with the baseline MYs 2024–2026 standards that increase at rates of 8 percent and 10 percent per year with their gasoline- and diesel-powered vehicle fleets. That is because those rates of increase are significantly higher than historic rates of gasoline- and diesel-powered technology improvement and is significantly higher than the gasoline- and diesel-based fleet can manage based on the most up-to-date data available for those years. On an industry-wide basis, NHTSA's MY 2024 analysis fleet used as an input to the CAFE Model show the MY 2024 gasoline- and diesel-powered passenger car fleet under-complying by over 6 miles per gallon with the baseline standard, and the gasoline- and diesel-powered light truck fleet under-complying by 2.7 miles per gallon with the baseline standard. NHTSA proposes to reset the CAFE program consistent with EPCA to address this significant, industry-wide compliance concern. Leaving in place standards for which compliance is not possible does nothing to improve the fuel economy of gasoline- and diesel-powered vehicles.

This action is also unique in that, in MY 2028, NHTSA is proposing to update the regulatory definitions for passenger cars and light trucks (referred to as passenger automobiles and non-passenger automobiles in EPCA), which would result in moving many models of what are currently considered lower fuel economy light trucks into the passenger car fleet, leaving the light truck fleet to consist of vehicles with attributes originally contemplated by the statute to be put towards non-passenger capabilities, thereby reducing the overall average fuel economy levels of the non-passenger fleet accordingly. This reclassification will have the effect of significantly lowering the average fuel economy values of both fleets, leaving all else equal, but maintaining the overall combined fleet fuel economy standards at the same level as MY 2027. This will have a dramatic effect on all manufacturers with both passenger cars and light truck fleets. To anticipate the reclassification change, NHTSA proposed to set MY 2027 standards in such a way as to bridge the gap between the amended MY 2026 standards (reflecting technology decisions that have been locked in at the time of publication), and the MY 2028 reclassification.[488] This transition adjustment is estimated to result in over-compliance in MY 2027. Manufacturers' estimated compliance positions relative to the standards are displayed in Table V–5 and Table V–6, which report over-compliance or shortfall in mpg (cell shading indicates shortfalls):

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[484] 85 FR 24174, 25181 (Apr. 30, 2020).

[485] 2024 EPA Automotive Trends Report, Figure 4.14. Gasoline Hybrid Engine Production Share Hybrid Type.

[486] EIA, U.S. All Grades All Formulations Retail Gasoline Prices (Dollars per Gallon), Last revised: Sept. 16, 2025, available at: *https://www.eia.gov/dnav/pet/hist/leafhandler.ashx?f=m&n=pet&s=emm_epm0_pte_nus_dpg* (accessed: Sept. 10, 2025).

[487] EIA, Hybrid vehicle sales continue to rise as electric and plug-in vehicle shares remain flat, Last revised: May 30, 2025, available at: *https://www.eia.gov/todayinenergy/detail.php?id=65384#:~:text=About%2022%25%20of%20light%2Dduty,the%20first%20quarter%20of%202024* (accessed: Sept. 10, 2025).

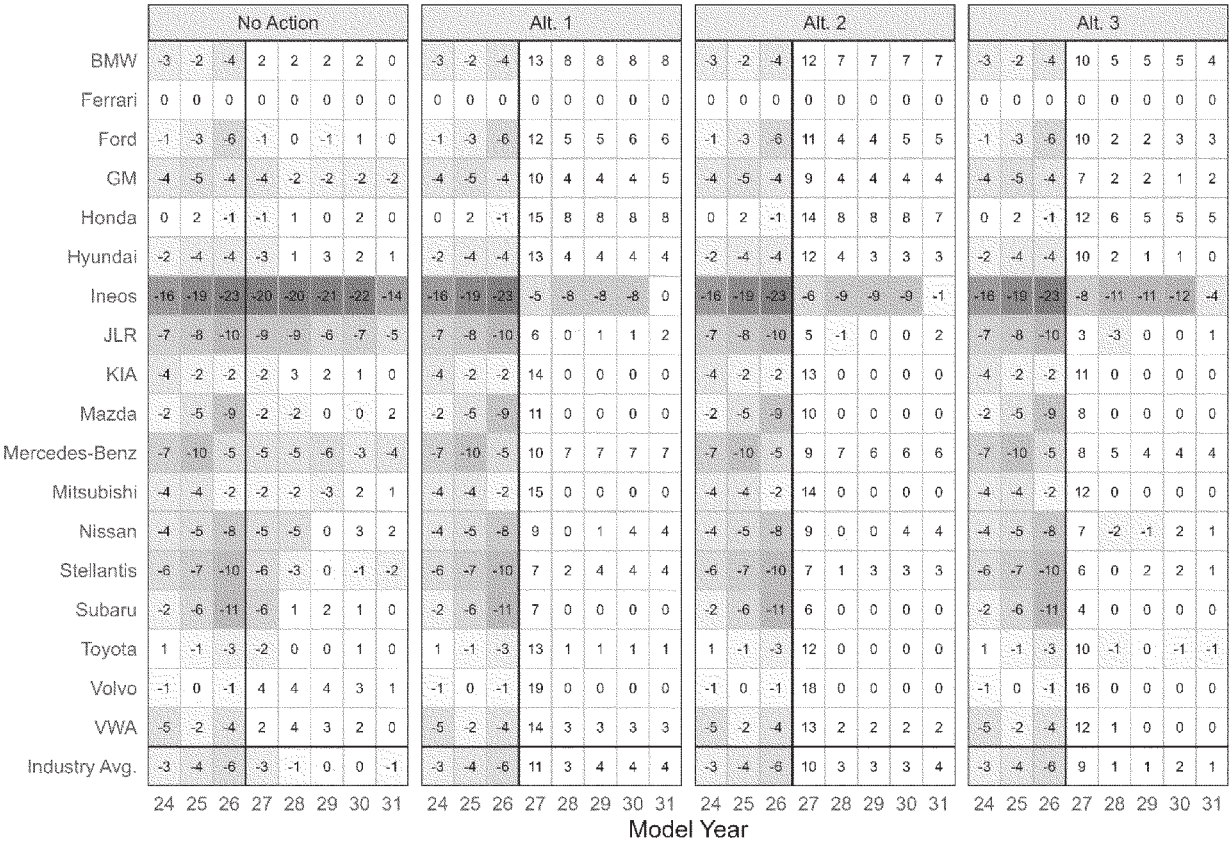
[488] For additional discussion of how NHTSA developed the regulatory alternatives for this proposal see preamble Section III.

Table V-5: Achieved Fuel Economy in MPG Relative to Required Levels Under Regulatory Alternatives, Passenger Cars

	No Action								Alt. 1								Alt. 2								Alt. 3							
	24	25	26	27	28	29	30	31	24	25	26	27	28	29	30	31	24	25	26	27	28	29	30	31	24	25	26	27	28	29	30	31
BMW	-12	-12	-13	-13	-10	-11	-12	-11	-12	-12	-13	10	7	7	7	8	-12	-12	-13	9	6	6	6	7	-12	-12	-13	7	4	4	3	4
Ferrari	-26	-30	-36	-37	-38	-39	-39	-39	-26	-30	-36	-14	-14	-14	-13	-12	-26	-30	-36	-15	-15	-15	-14	-13	-26	-30	-36	-16	-17	-18	-17	-16
Ford	-14	-19	-22	-20	-21	-23	-24	-25	-14	-19	-22	3	5	5	5	5	-14	-19	-22	2	4	4	4	4	-14	-19	-22	1	3	3	3	2
GM	-9	-10	-8	-6	-7	-3	-4	-5	-9	-10	-8	17	10	10	10	10	-9	-10	-9	16	9	9	9	9	-9	-10	-8	14	7	6	6	6
Honda	-1	-5	-4	-4	0	7	6	5	-1	-5	-4	20	10	11	12	11	-1	-5	-4	19	9	10	10	10	-1	-5	-4	17	7	7	7	7
Hyundai	-6	-9	-11	-4	1	4	2	1	-6	-9	-11	13	8	8	8	8	-6	-9	-11	12	7	7	7	7	-6	-9	-11	10	4	4	4	3
Ineos	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JLR	-18	-22	-12	-14	-15	-16	-17	-18	-18	-22	-12	10	6	6	6	6	-18	-22	-12	9	5	5	5	5	-18	-22	-12	7	3	2	2	2
KIA	-5	-4	-6	-6	-4	6	4	3	-5	-4	-6	19	10	10	10	10	-5	-4	-6	18	9	9	9	9	-5	-4	-6	16	7	7	6	6
Mazda	-9	-10	3	2	1	0	-2	-3	-9	-10	3	28	4	4	4	6	-9	-10	3	27	3	3	3	5	-9	-10	3	25	1	1	0	2
Mercedes-Benz	-11	-14	-18	-17	-17	-14	-13	-13	-11	-14	-18	5	2	3	4	5	-11	-14	-18	4	1	2	3	4	-11	-14	-18	3	0	1	2	2
Mitsubishi	0	-5	13	12	10	9	8	6	0	-5	13	42	12	12	15	14	0	-5	13	41	11	11	13	13	0	-5	13	39	8	8	10	10
Nissan	-4	0	-3	2	1	0	-1	-2	-4	0	-3	26	14	16	16	16	-4	0	-3	24	13	15	15	15	-4	0	-3	23	10	12	12	12
Stellantis	-10	-14	-20	-15	-16	-18	-18	-20	-10	-14	-20	10	5	5	5	5	-10	-14	-20	8	4	4	4	4	-10	-14	-20	8	2	2	2	1
Subaru	-13	-14	-20	-10	0	-1	-2	-4	-13	-14	-20	7	3	4	3	3	-13	-14	-20	6	2	2	2	2	-13	-14	-20	4	0	1	0	0
Toyota	-2	-2	4	4	3	2	2	2	-2	-2	4	28	18	18	19	19	-2	-2	4	27	17	17	18	18	-2	-2	4	26	14	14	14	14
Volvo	-8	-12	-7	-8	-6	-7	-8	-9	-8	-12	-7	16	11	11	10	10	-8	-12	-7	15	10	10	10	9	-8	-12	-7	13	8	7	7	6
VWA	-13	-13	-12	-12	-8	-10	-11	-11	-13	-13	-12	13	6	6	6	6	-13	-13	-12	12	5	5	5	5	-13	-13	-12	10	4	3	3	3
Industry Avg.	-6	-7	-7	-5	-4	-1	-2	-3	-6	-7	-7	18	10	10	10	10	-6	-7	-7	17	8	9	9	9	-6	-7	-7	16	6	6	6	6

Model Year

Table V-6: Achieved Fuel Economy in MPG Relative to Required Levels Under Regulatory Alternatives, Light Trucks



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Consistent with the above discussion, the tables show most manufacturers under-complying significantly in each fleet under the baseline standards. And manufacturers that seemingly comply with baseline standards do so at an extreme cost, as discussed in more detail below. Under the regulatory alternatives, different manufacturers would have difficulties complying depending upon fleet. While NHTSA proposes to amend the baseline standards to a lower level, several manufacturers fail to meet the standards in particular model years with their gasoline- and diesel-powered fleets. In somewhat of a reversal of historical trends, when the proposed fleet reclassification occurs in MY 2028, the manufacturers' fleets with projected achieved fuel economy values closest to the standards include Toyota's light truck fleet, which just complies with the proposed standards in Alternative 2 yet under-complies in Alternative 3. On the other hand, the GM, Ford, and Stellantis light truck fleets range from higher over-compliance to slight over-compliance between the three regulatory alternatives considered in this proposal.

NHTSA also considered with the MY 2028 reclassification proposal that manufacturers may comply with the new standards by changing product offerings or vehicle attributes, which NHTSA's analysis cannot capture. Manufacturers may choose to optimize their compliance pathway by making changes to the mix of vehicles they produce in several ways: instead of adding fuel economy-improving technology, a manufacturer could instead choose to change their product offerings to sell more vehicles that meet or exceed the new fuel economy targets while discontinuing other, less efficient vehicles. Alternatively, they may change a vehicle's attributes (*e.g.,* to meet off-road vehicle requirements) such that the vehicle would have a lower fuel economy target.

The CAFE Model does not simulate changes in product offerings or changes in particular vehicle attributes in response to CAFE standards because NHTSA does not intend for manufacturers to need to change those offerings or attributes to comply with standards. However, to the extent that NHTSA's standards may disincentivize the production of particular types of vehicles, NHTSA believes it is appropriate to consider this factor when considering economic practicability. Specifically, NHTSA believes that past CAFE standards may have disincentivized the production of passenger automobiles in favor of non-passenger automobiles.

EPCA's CAFE framework recognizes that certain automobiles inherently have features that make them less fuel efficient, such as high ground clearances for off-highway operation, 4WD, reinforced frames, suspensions, and axles for transporting heavy loads, or certain cargo-transporting body styles and configurations, as in cargo vans or pickup trucks. By separating the automobiles into two categories, CAFE standards aim to avoid penalizing automobiles with these non-passenger features, thus preserving consumer choice. However, because non-passenger automobiles and passenger automobiles are subject to different fuel

economy standards, it is possible that NHTSA's standards could implicitly favor either the production of non-passenger automobiles or passenger automobiles, creating an incentive for manufacturers to change their vehicles' characteristics to reclassify them.[489] The incentive to reclassify a vehicle would exist if there were a mismatch between the amount a standard is lower for a non-passenger automobile, compared to a passenger automobile of the same footprint, and the additional fuel usage and costs associated with adding a particular qualifying non-passenger characteristic or feature to the automobile.

Available information indicates that past CAFE standards have caused a market distortion by disincentivizing the production of passenger automobiles relative to non-passenger automobiles.[490] As explained in more detail in Section VI, there has been a significant shift in the proportions of passenger and non-passenger automobiles in the light-duty fleet. Under NHTSA's proposed changes to vehicle classification, a significant portion of non-passenger automobiles would be reclassified as passenger automobiles. These proposed changes, if finalized, would realign the CAFE program with EPCA and ensure that vehicles are properly classified based upon their intended real-world usage. NHTSA believes that these changes, coupled with the proposed standards, also would remove much of the incentive for manufacturers to change vehicle attributes to allow a vehicle that primarily functions as a passenger automobile to be classified as a non-passenger automobile. Specifically, NHTSA believes the proposed CAFE standards reset, including a new curve fitting analysis to reshape the coefficient curves and the small, incremental increases proposed in this NPRM that increase the passenger automobile and non-passenger automobile standards at rates sustainable for each respective regulatory fleet, would further reduce any incentive to change vehicle attributes or offerings in response to CAFE standards. Such assessment also reflects the agency's longstanding position that revisiting the vehicle classification regulations likely would need to be accompanied by changes to the shapes of the footprint curves or the stringency of the standards to ensure the standards still reflect maximum feasibility for the adjusted fleets.[491]

While consumer preferences change over time, the CAFE program should not set standards that drive changes in market offerings, particularly if it drives changes that decrease market offerings that are more affordable to consumers. NHTSA tentatively concludes that the proposed standards would neither limit manufacturers' product offerings inconsistent with market demand, nor provide a reduction in attributes that consumers value.

Returning to the results of the analysis, at the individual manufacturer level, the No-Action Alternative imposes large annual technology cost increases on manufacturers but still leads to significant under-compliance with their gasoline- and diesel fueled fleets. Under each of the action alternatives, all manufacturers see a significant reduction in vehicle technology costs. Given fierce price competition in the automotive industry, NHTSA expects these cost reductions will be passed on to consumers. With a few outliers (*e.g.,* Ferrari and INEOS), Figure V–1 shows significant technology cost decreases for all manufacturers relative to the No-Action Alternative. These technology cost decreases would have significant ripple effects in the new vehicle market, including increasing sales and fleet turnover, as discussed in more detail below.

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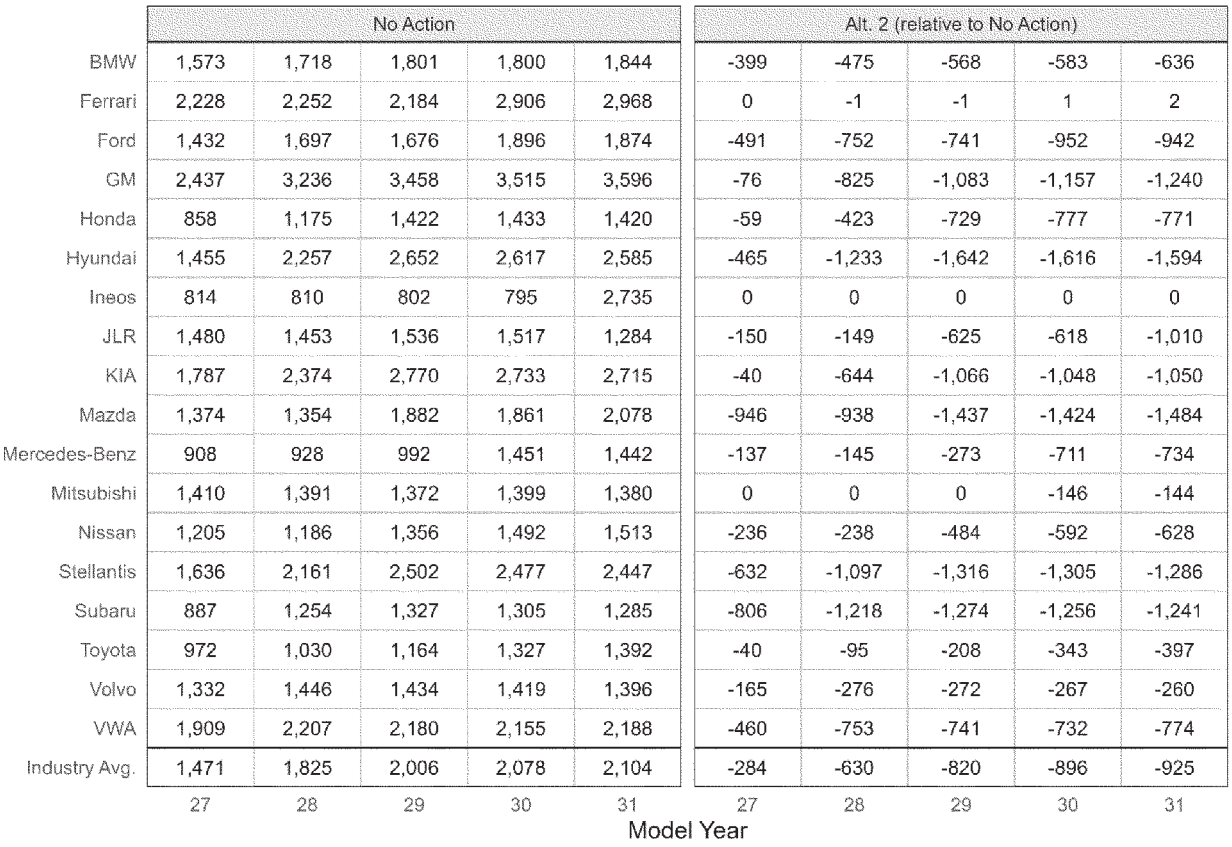
[489] In NHTSA's 2012 final rule setting standards for 2017–2025, NHTSA recognized that ''manufacturers may have an incentive to classify vehicles as light trucks if the fuel economy target for light trucks with a given footprint is less stringent than the target for passenger cars with the same footprint.'' (77 FR 62624, Oct. 15, 2012).

[490] As an example, when NHTSA properly reclassified over 1 million FWD automobiles as passenger automobiles in line with EPCA, manufacturers opted to discontinue the FWD variant of vehicle lines to keep more of their products in the non-passenger automobile fleets (74 FR 14196, Mar. 30, 2009).

[491] 90 FR 24518, 24524 (June 11, 2025) (citing 77 FR 62624, 63123).

Figure V-1: Per-Vehicle Technology Costs Relative to No-Action Alternative (2024$)



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One of the most important aspects of resetting CAFE standards is to reduce the up-front costs that consumers must pay for new vehicles due to CAFE standards. NHTSA assumes that technology costs due to increased or decreased CAFE standards are passed on to the consumer in the form of higher or lower new vehicle prices. For this proposed reset, all regulatory alternatives considered reduce the technology costs attributable to CAFE standards by half compared to the baseline. These technology cost reductions result in reducing the average price of a vehicle by more than $900 by MY 2031, which represents a significant up-front cost savings for consumers and results in significant cascading cost savings for insurance, registration, taxes, and finance charges. NHTSA believes that vehicle affordability is an important aspect to consider when setting CAFE standards under the economic practicability factor; while the agency attempts to quantify multiple aspects related to vehicle affordability in its analysis both quantitatively and qualitatively, NHTSA seeks comment on additional ways that affordability could be included in the agency's assessment of maximum feasible standards. Aside from the cascading benefits mentioned above, consumers also would receive a benefit from reset standards in the form of manufacturers' ability to improve vehicle attributes that they were not able to improve given the former overly aggressive imperative to improve vehicle fuel economy. That value is a tangible monetized benefit for each regulatory alternative compared to the baseline and is quantified as an opportunity cost in this analysis.

Consumers would see marginally higher fuel costs in all alternatives relative to the baseline, with a difference of approximately $200 between the lowest and highest stringency alternatives, spread out over the life of the vehicle. However, large up-front vehicle cost savings can make the purchase of a new vehicle affordable for more consumers in the nearer term, while higher fuel costs likely are realized over the decades-long life of the vehicle and depend on future fuel prices, which are uncertain. Manufacturers are also free to produce more fuel-efficient vehicles for those consumers who wish to purchase them. Accordingly, NHTSA seeks comment—as discussed in more detail in Section IV—on alternative presentations of the fuel savings that accrue to the different owners over a vehicle's life.

Another intended benefit of the proposed reset standards is that vehicle sales will increase as a result of lower vehicle prices, getting Americans into newer, safer, and less polluting vehicles more quickly. While the regulatory alternatives do not differ meaningfully in projected sales effects, they all increase vehicle sales relative to the baseline standards. NHTSA recognizes that there are several macroeconomic factors that influence vehicle purchasing decisions and that changes in vehicle prices are based on significantly more factors than the lowering or increasing of CAFE standards and a subsequent addition or re-evaluation of technology applications. Regardless, any standards set by the agency should not impede the ability of manufacturers and dealers to sell vehicles.

Table V-7: Industry-Wide Sales Effects (in thousands of vehicles)

Model Year	No-Action Alternative	Difference from No-Action		
		Alt. 1	Alt. 2	Alt. 3
2024	13,706	0	0	0
2025	13,360	0	0	0
2026	13,241	0	0	0
2027	13,115	16	16	15
2028	12,588	38	38	36
2029	12,393	47	47	44
2030	12,222	49	49	46
2031	11,816	47	47	45

NHTSA also estimates employment effects as a result of the different regulatory alternatives. The agency's model for estimating labor impacts in the parts supply space is fairly simplistic: any reduction in costs translates directly to an assumption of reduced labor hours into a metric called ''person years.'' The agency's methodology does not account for a diversion of such labor into development or production of different technologies. Based on the agency's method for calculating labor effects, NHTSA's analysis shows a decrease in cumulative person years from less stringent standards relative to the baseline, in part because of the decreased need for development and application of additional fuel-economy-improving technology. However, as Table V–8 shows, the relative changes between the No-Action and Action Alternatives are less than 1 percent.

Table V-8: Industry-Wide Labor Utilization Effects (Percent Change in Person Years From No-Action)

Model Year	Alt. 1	Alt. 2	Alt. 3
2024	0.0	0.0	0.0
2025	0.0	0.0	0.0
2026	0.0	0.0	0.0
2027	-0.2	-0.2	-0.1
2028	-0.5	-0.5	-0.4
2029	-0.8	-0.8	-0.7
2030	-0.8	-0.8	-0.7
2031	-0.9	-0.9	-0.8

While NHTSA's quantitative estimates of changes in employment effects capture some factors related to how the automotive industry may respond to lower fuel economy standards, there are a number of potential employment impacts from lower fuel economy standards that have not been captured in the analysis. As an example, the analysis does not capture the effects of manufacturers' shifting vehicle and powertrain production to the United States in response to factors other than the agency's CAFE standards.[492] Given a range of potential industry responses, not only to new fuel economy standards, but also to the larger macroeconomic context, NHTSA cannot conclude that its estimates of changes in employment effects would lead it to changing its proposed determination on maximum feasible standards.

NHTSA also considers safety effects in determining maximum feasible CAFE standards, both because of its expertise as a safety agency and also as an element of economic practicability.[493]

[492] See The White House, TRUMP EFFECT: Mercedes to Shift More Vehicle Production to U.S., Last revised: May 1, 2025, available at: *https://www.whitehouse.gov/articles/2025/05/trump-effect-mercedes-to-shift-more-vehicle-production-to-u-s/* (accessed: Sept. 10, 2025); The White House, Fact Sheet: President Donald J. Trump Incentivizes Domestic Automobile Production, Last revised: Apr. 29, 2025, available at: *https://www.whitehouse.gov/fact-sheets/2025/04/fact-sheet-president-donald-j-trump-incentivizes-domestic-automobile-production/* (accessed: Sept. 10, 2025).

[493] *See* 88 FR 56256 (Aug. 17, 2023) (''As a safety agency, NHTSA has long considered the potential for adverse or positive safety consequences when establishing CAFE and fuel efficiency standards.''). *See also Competitive Enterprise Institute* v. *NHTSA,* 901 F.2d 107, 120 n.11 (D.C. Cir. 1990) (''Petitioners

As the Nation's primary vehicle safety regulator, NHTSA, acting in accordance with EPCA, endeavors to avoid the adoption of fuel economy standards that are likely to result in a significant increase in roadway deaths and serious injuries. As new vehicle models become unaffordable or unappealing, many American families will be left driving older and older used cars, and the age of the Nation's auto fleet will persistently rise. Already, the average age of a car on the road in the United States is approaching 13 years, and many cars are on their fifth or sixth owners.[494] The aging of the American fleet has negative safety consequences, as NHTSA's studies show that older vehicles are much less safe than newer models in an accident.[495] In addition to examining the effects of its proposed standards on fleet turnover, NHTSA also examines the effects of the proposed standards on safety due to changes in vehicle-miles traveled (VMT) caused by the rebound effect and changes in mass disparities in the vehicle fleet, as discussed in more detail below.

Safety issues related to vehicle size and mass existed prior to the introduction of attribute-based CAFE standards. Manufacturers' responses to the early one-dimensional mpg-based standards included dramatic reductions in vehicle size and mass in a way that resulted in lighter vehicles that failed to protect occupants in crashes as effectively as larger, heavier vehicles. Under attribute-based standards, NHTSA's modern CAFE safety assessment has since evolved to include three elements: changes in vehicle mass, the impacts of vehicle prices on fleet turnover, and changes in exposure to risks associated with motor vehicle travel due to changes in VMT because of the standards, which are associated in this case primarily with changes due to the rebound effect. NHTSA examines how the proposed standards could impact fatalities, non-fatal injuries, and property damage from crashes for both vehicle occupants and non-occupants (*e.g.,* pedestrians and cyclists) for each of those elements.

Table V–9 and Table V–10 show the following trends relevant to inform NHTSA's standard-setting decision. First, effects from mass changes are expected to increase incrementally compared to the No-Action Alternative, as less MR is expected to be applied in the heaviest vehicles in response to lower standards, negating some of what would otherwise result in a lessening of mass disparity between the smallest and largest vehicles in the fleet. Appropriate caveats about the safety module's confidence with regards to projecting results are discussed in Draft TSD Chapter 7 and PRIA Chapter 8 and warrant discussion here as well. While the mass-safety parameters estimated from the statistical models used in the CAFE analysis are statistically indistinguishable from zero, the point estimates are in expected directions based on the agency's own safety studies and other outside studies, which helps support the agency's conclusions about the general levels of effects between the No-Action Alternative standards and the alternatives. In addition, to the extent vehicle manufacturers can adopt updated approaches to their product offerings better in line with market demand, once the proposed reclassification diminishes manufacturers' incentives to add features to place passenger-oriented vehicles in the light truck regulatory class (with its lower fuel economy standards), there may be additional lessening of the mass disparity between vehicles, and consequently the associated effects, in the light-duty fleet.

Next, NHTSA acknowledges that, as has been the case for the past several rulemakings, the magnitude of the rebound effect on vehicle safety dominates the overall safety picture across the three alternatives. For this rulemaking, the projected decrease in VMT under the reset standards leads to a significant projected decrease in fatalities, injuries, and property damage only (PDO) crashes.

Finally, regarding safety, NHTSA estimates an increase in safety effects in the action alternatives compared to the No-Action Alternative as newer, safer vehicles enter the fleet more quickly than they would have in the No-Action Alternative because of reduced vehicle prices. As vehicles become safer, many crashes that would otherwise result in death or injury do not result in such harms, leading to an increase in PDO crashes and the related sales/scrappage cost estimates but a decrease in the more severe types of crashes and an overall safety benefit for the proposal in terms of lives saved and injuries avoided.

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have never clearly identified the precise statutory basis on which safety concerns should be factored into the CAFE scheme, although they alluded to occupant safety as part of the 'economic practicability' criterion in their MY 1989 petition to NHTSA and at oral argument. We do not find this failure fatal, however, because NHTSA has always examined the safety consequences of the CAFE standards in its overall consideration of relevant factors since its earliest rulemaking under the CAFE program (citations omitted). Moreover, NHTSA itself believes that Congress was cognizant of safety issues when it enacted the CAFE program. As evidence, NHTSA discusses a congressional report that dealt with the safety consequences of a downsized fleet of cars which had been considered by Congress during its enactment of the CAFE program.'').

[494] S&P Global Mobility., Average Age of Light Vehicles in the U.S. Hits Record High 12.5 years, according to S&P Global Mobility, (2023), available at: *https://press.spglobal.com/2023-05-15-Average-Age-of-Light-Vehicles-in-the-US-Hits-Record-High-12-5-years,-according-to-S-P-Global-Mobility* (accessed: Sept. 10, 2025).

[495] See NHTSA, Learn the Facts about New Cars: Why newer cars are safer than ever before, available at: *https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/newer-cars-safer-cars_fact-sheet_010320-tag.pdf* (accessed: Sept. 10, 2025).

Table V-9: Change in Safety Costs from the No-Action Alternative, CYs 2024-2050, 3% Discount Rate

	Alt 1	Alt 2	Alt 3
Fatality Costs ($b)			
Fatality Costs From Mass Changes	0.2	0.2	0.2
Fatality Costs From Rebound Effect Driving	-12.8	-12.8	-11.4
Fatality Costs From Sales/Scrappage	-0.7	-0.7	-0.7
Total - Fatality Costs	-13.4	-13.4	-11.9
Non-Fatal Crash Costs ($b)			
Non-Fatal Crash Costs From Mass Changes	0.8	0.8	0.6
Non-Fatal Crash Costs From Rebound Effect Driving	-49.5	-49.5	-43.8
Non-Fatal Crash Costs From Sales/Scrappage	-1.6	-1.6	-1.6
Total - Non-Fatal Crash Costs	-50.3	-50.3	-44.8
Property Damage Costs ($b)			
Property Damage Costs From Mass Changes	0.1	0.1	0.1
Property Damage Costs From Rebound Effect Driving	-4.9	-4.9	-4.3
Property Damage Costs From Sales/Scrappage	0.2	0.4	0.4
Total - Property Damage Costs	-4.7	-4.7	-4.7
Societal Crash Costs ($b)			
Crash Costs From Mass Changes	1.1	1.1	0.8
Crash Costs From Rebound Effect Driving	-67.2	-67.2	-59.5
Crash Costs From Sales/Scrappage	-2.2	-2.0	-1.9
Total - Societal Crash Costs	-68.4	-68.4	-61.4

Table V-10: Change in Safety Effects from the No-Action Alternative for CYs 2024-2050

	Alt 1	Alt 2	Alt 3
Fatalities			
Fatalities From Mass Changes	27	27	20
Fatalities From Rebound Effect Driving	-1,528	-1,528	-1,354
Fatalities From Sales/Scrappage	-66	-66	-64
Total - Fatalities	-1,568	-1,567	-1,398
Non-Fatal Injuries			
Non-Fatal Injuries From Mass Changes	4,264	4,264	3,221
Non-Fatal Injuries From Rebound Effect Driving	-245,022	-244,963	-217,158
Non-Fatal Injuries From Sales/Scrappage	-5,709	-5,709	-5,564
Total - Non-Fatal Injuries	-246,467	-246,408	-219,501
Property Damage Crashes			
Property Damage Crashes From Mass Changes	13,629	13,629	10,379
Property Damage Crashes From Rebound Effect Driving	-835,103	-834,915	-740,855
Property Damage Crashes From Sales/Scrappage	26,991	26,989	25,437
Total - Property Damage Crashes	-794,482	-794,297	-705,039

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To conclude, NHTSA's safety analysis reinforces that the reset standards (and all regulatory alternatives considered) would improve safety outcomes relative to the No-Action Alternative. While the magnitude of positive benefits may be small in terms of measurability with NHTSA's current modeling capabilities, the directionality is consistent with what NHTSA's research shows: getting Americans into newer, safer vehicles is beneficial for safety.[496]

c. The Need of the United States To Conserve Energy

In the past decade, the consumer costs (via fuel prices), national balance of payments, and foreign policy implications of the need for large quantities of petroleum in the United States, especially imported petroleum, have shaped the consideration of this factor in ways that Congress could not have foreseen in the 1970s when EPCA was originally passed. As NHTSA acknowledged in the 2020 final rule, there are two approaches to increasing petroleum independence: the first is simply to use less petroleum, and the second is for the United States to produce more of its own petroleum and to use less petroleum purchased from abroad. The United States has recently excelled at the second approach; our Nation became a net exporter of petroleum on an annual basis in 2020 (and on a monthly basis for the first time in September 2019) for the first time since at least 1949 and continued to export more petroleum than it imported in 2021, 2022, and 2023.[497] In fact, the United States currently produces the most oil (particularly shale oil) of any country.[498] The sources of imports to the U.S. have also changed significantly since EPCA's passage; whereas OPEC nations were the source of 70 percent of U.S. total petroleum imports in 1977, Canada now represents the largest source at 52 percent of gross total petroleum imports, and imports from OPEC nations represent only 16 percent.[499] This shift helps insulate the U.S. from supply shocks attributable to imports from the most volatile regions. A concurrent change in global oil market dynamics has helped steady the fuel prices that consumers experience in the wake of potential impacts to supply from foreign oil-producing countries: the oil market is simply less reactive to global events.[500] Isolated subnational events, like the 2021 Colonial Pipeline ransomware attack, still have the potential to cause short-term price spikes in specific areas of the country,[501] but that national-level gasoline prices have held steady and have even modestly decreased through

[496] NHTSA, How Vehicle Safety Has Improved Over the Decades, available at: *https://www.nhtsa.gov/how-vehicle-safety-has-improved-over-decades* (accessed: Sept. 10, 2025); NHTSA, Learn the Facts About New Cars: Why newer cars are safer than ever before, available at: *https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/newer-cars-safer-cars_fact-sheet_010320-tag.pdf* (accessed: Sept. 10, 2025); NHTSA, Learn the Facts About New Cars: Why newer cars are safer than ever before, Version 2, available at: *https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/newer-cars-safer-cars_infographic_010320_2-tag.pdf* (accessed: Sept. 10, 2025).

[497] EIA, Oil and Petroleum Products Explained, Last revised: Jan. 19, 2024, available at: *https://www.eia.gov/energyexplained/oil-and-petroleum-products/imports-and-exports.php* (accessed: Sept. 10, 2025); EIA, Frequently Asked Questions (FAQs): How Much Petroleum Does the United States Import and Export?, Last revised: Mar. 29, 2024, available at *https://www.eia.gov/tools/faqs/faq.php?id=727&t=6* (accessed: Sept. 10, 2025).

[498] EIA, Today in Energy: United States Produces More Crude Oil Than Any Country, Ever, Last revised: Mar. 11, 2024, available at: *https://www.eia.gov/todayinenergy/detail.php?id=61545#* (accessed: Sept. 10, 2025).

[499] *Id.*

[500] See, *e.g.,* Domonoske, C., Why a War in the Middle East Hasn't Sparked an Oil Crisis, Last revised: June 25, 2025, available at: *https://www.npr.org/2025/06/25/nx-s1-5444030/oil-prices-iran-israel* (accessed: Sept. 10, 2025).

[501] Thorbecke, C., Gas Hits Highest Price in 6 years, Fuel Outages Persist Despite Colonial Pipeline Restart, Last revised: May 17, 2021, available at: *https://abcnews.go.com/US/gas-hits-highest-price-years-fuel-outages-persist/story?id=77735010* (accessed: Sept. 10, 2025) (gas prices in Southern states jumped 18–21 cents, while the national average rose eight cents).

major global events evidences at least some decoupling of fuel prices and the concerns that led to EPCA's passage in 1975.

NHTSA's quantitative analysis of energy security benefits estimates that the level of standards the agency is proposing as maximum feasible to change the costs of petroleum market externalities only modestly relative to the No-Action Alternative. Specifically, the largest incremental change in energy security externalities is approximately 1.3 percent of the total petroleum market externality costs in the No-Action Alternative.

At the same time, even though fuel economy standards have increased dramatically over the past 15 years, fuel use has not decreased appreciably. Since the agency began setting fuel economy standards in the early 2010s that increased at significant rates, motor gasoline consumption in the United States has hovered in the realm of the upper 8 million to low 9 million barrels per day (with a brief decrease in 2020 to just 8 million barrels per day).[502] There are a number of reasons why fuel consumption may hold steady as vehicle fuel economy increases (*e.g.,* vehicle-miles traveled have increased substantially in response to the economy or the rebound effect), but the fact that even significantly increased vehicle fuel economy standards have not decreased fuel consumption at measurable levels in the real world should be considered by NHTSA in how heavily it weighs the need of the United States to conserve energy relative to other factors. This is particularly true given the diminishing effects attributable to fuel economy improvements: as fuel economy standards increase in stringency, the benefit of continuing to increase stringency decreases. In mpg terms, a vehicle owner who drives a light vehicle 15,000 miles per year (a typical assumption for analytical purposes) and trades in a vehicle with fuel economy of 15 mpg for one with fuel economy of 20 mpg, will reduce their annual fuel consumption from 1,000 gallons to 750 gallons—saving 250 gallons annually. If, however, that owner trades in a vehicle with fuel economy of 30 mpg for one with fuel economy of 40 mpg, then the owner's annual gasoline consumption would drop from 500 gallons/year to 375 gallons/year—a fuel savings of only 125 gallons even though the mpg improvement is twice as large. Going from 40 to 50 mpg would save only 75 gallons/year. Yet each additional fuel economy improvement becomes much more expensive as the easiest to achieve low-cost technological improvement options are exhausted. While fuel economy standards may support energy conservation, the agency must moderate its consideration of those impacts in setting maximum feasible standards, based on real-world effects, with the other three statutory factors.

Whether CAFE standards remain the most effective way to accomplish the goal of using less gasoline in the light-duty motor vehicle fleet to increase energy security is a decision for Congress, but for now, EPCA's directive to NHTSA is to set CAFE standards in each model year, and that is what the agency will continue to do. Within this framework, however, accounting for particular realities—specifically that oil consumption in the United States has remained steady or increased even in the face of significantly increased fuel economy standards while the country has simultaneously become a net petroleum exporter and the world's largest oil producer—leads the agency to conclude tentatively that the weight of these three facets of the need of the United States to conserve energy do not lead the agency to consider higher CAFE standards as maximum feasible.

Regarding environmental concerns, another factor historically considered as part of the need of the United States to conserve energy, the proposed reset standards decrease vehicle costs compared to the baseline, which results in incrementally more vehicle sales, particularly of vehicles that are modestly less fuel efficient compared to vehicles under the baseline standards. This would result in a modest increase in fuel consumption but also results in less driving demand than the baseline because the total cost-per-mile of driving is higher. The net result of these countervailing factors—increased vehicle sales of less fuel-efficient vehicles but subsequently fewer miles driven in those vehicles due to decreased rebound driving—is more fuel consumed from vehicles regulated under the proposed reset standards compared to the baseline standards. Emissions of various pollutants would increase relative to the No-Action Alternative as a result of both increased upstream emissions from the various fuel production processes and increased downstream emissions from fuel combustion as vehicles are driven commensurate with the fuel consumption increases. However, in the context of total emissions compared to the baseline, the incremental increases would be marginal. In addition, non-criteria emissions (NCEs) in all three action alternatives decrease over time, as newer vehicles enter the fleet. Criteria pollutant emissions similarly increase relative to the No-Action Alternative, but all three action alternatives result in decreased criteria pollutant emissions over time. PRIA Chapter 8 provides additional detail on the changes in emissions and, for criteria emissions specifically, associated calculated health outcomes. NHTSA's NEPA analysis similarly shows only marginal differences between the baseline and alternatives considered in this proposal. The results of that analysis are summarized below and in the Draft SEIS.

NHTSA does not believe that the magnitude of fuel consumption and emission increases over the baseline would lead the agency to conclude that standards set at higher levels than the agency analyzed are maximum feasible. The fact that the agency's proposed reset standards are so significantly different than the baseline standards and yet result in only marginal increases in fuel consumption as shown in Table V–11 (and associated emissions metrics, as shown in PRIA Chapter 8 and the Draft SEIS) confirms NHTSA's tentative conclusion that the environmental elements of the need of the Nation to conserve energy do not weigh heavily enough against the countervailing factors of technological feasibility and economic practicability to merit the adoption of more stringent standards. The following table shows the difference between the baseline and alternatives for changes in fuel consumption for the gasoline- and diesel-powered vehicle fleet; emissions outcomes are generally commensurate with these levels and are discussed further in PRIA Chapter 8 and the Draft SEIS.

[502] EIA, Petroleum & Other Liquids: U.S. Product Supplied of Finished Motor Gasoline, Last revised: Aug. 29, 2025, available at: *https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MGFUPUS2&f=A* (accessed: Sept. 10, 2025).

Table V-11: Fuel Consumption Levels and Changes From Baseline for Selected Calendar Years

	2027	2028	2029	2030	2031	2040	2050
Total Consumption (b. gal)							
No Action	125.7	121.5	117.4	113.4	109.4	83.9	72.1
Alt. 1	125.8	122.0	118.4	114.8	111.3	89.0	77.8
Alt. 2	125.8	122.0	118.4	114.8	111.3	89.0	77.8
Alt. 3	125.8	121.9	118.2	114.6	111.0	88.4	77.2
Change from No Action (b. gal)							
Alt. 1	0.2	0.5	0.9	1.4	1.9	5.1	5.7
Alt. 2	0.2	0.5	0.9	1.4	1.9	5.1	5.7
Alt. 3	0.2	0.4	0.8	1.2	1.6	4.5	5.1
Change from No Action (%)							
Alt. 1	0%	0%	1%	1%	2%	6%	8%
Alt. 2	0%	0%	1%	1%	2%	6%	8%
Alt. 3	0%	0%	1%	1%	1%	5%	7%

Regardless of the level of standards that NHTSA tentatively concludes is maximum feasible in this proposal, light-duty vehicle fuel consumption is still forecast to decline substantially in the long run as shown above in Table V–11, both as a result of NHTSA's standards and fleet turnover. The environmental effects related to fuel consumption, both because of NHTSA's standards and other light-duty transportation trends, will decrease proportionally based on effect or pollutant. NHTSA has accordingly determined that, at the time of this proposed rule, the need of the United States to conserve energy weighs in favor of fuel economy standards' acting as an insurance policy against risk, with standards that increase at steady, incremental, manageable rates for the light-duty gasoline- and diesel-powered fleets following their reset to align more closely with EPCA.

In sum, NHTSA has tentatively determined that a proper consideration of ''the need of the United States to conserve energy'' should result in fuel economy standards that become *less stringent* as America continues to tap into its proven oil reserves because the Nation's exposure to oil shocks is inherently diminished. This is especially true as the remaining petroleum imported into the U.S. has shifted dramatically away from volatile OPEC nations and toward Mexico and Canada since the passage of EPCA, and even EISA. The U.S. currently possesses a superabundance of domestic energy resources, especially petroleum and natural gas. Following the shale-oil boom, America has attained energy independence and does not have the same need to conserve liquid-fuel energy resources that it had in the wake of the Arab oil embargoes of the 1970s. United States energy independence was unthinkable when EPCA was enacted. Accordingly, NHTSA believes that it is both reasonable and congruent with EPCA's energy conservation goals to weigh the need of the United States to conserve energy such that vehicle fuel economy standards require continuous improvements over time, but at sustainable levels for manufacturers, consumers, and society at large.

Finally, as discussed above, NHTSA considers estimated net benefits as relevant to determining maximum feasible CAFE standards. The agency's analysis shows that all three regulatory alternatives would result in positive net benefits at both 3 percent and 7 percent discount rates, with the Preferred Alternative, Alternative 2, resulting in $24.0 billion in estimated net benefits using a 3-percent discount rate and $22.2 billion in net benefits using a 7-percent discount rate.[503] While the difference in net benefits between regulatory alternatives is small, NHTSA believes that the yearly stringency increases represented by the Alternative 2 standards best comport with the technological and economic capabilities of the gasoline- and diesel-powered vehicle fleets while still resulting in small, steady incremental increases in fleet fuel economy and positive benefits for society.

Balancing all factors and issues identified above, NHTSA is proposing to increase fuel economy standards from the newly proposed MY 2022 standards at a rate of 0.5 percent per year through MY 2026 followed by 0.25 percent per year through the remainder of the 10 model years covered by this proposal. NHTSA's preliminary conclusion is that this decision to increase the stringency of the standards at annual rates achievable by gasoline- and diesel-powered vehicles, coupled with a re-examination of the shape of the fuel economy target functions and the vehicle classification definitions, best comports with the substantive textual requirements of EPCA. Moreover, the level, shape, and applicability of the standards to the passenger and non-passenger automobile fleets, as reclassified under this proposal, is justified by the extraordinary distortions the existing regulations have caused in the marketplace. Imposing such market distortions is inconsistent with a proper application of EPCA and results only in unnecessary regulatory burden without insulating the United States from major disruptions in the global oil market. Consistent with the discussion above, NHTSA believes that small, steady, incremental increases in fuel economy standards over time, while preserving the ability of manufacturers to focus on

[503] As is discussed in Chapter 8 of the PRIA, NHTSA estimates the benefits and costs of the regulatory alternatives under consideration from both model year and calendar year perspectives. The estimates shown here are for the model year approach.

safety, affordability, and consumer choice, are reasonable and appropriate, and appropriately balance EPCA's priorities, including energy conservation goals.

3. Draft Supplemental Environmental Impact Statement Analysis Results

NHTSA described above that the agency's NEPA-related obligation is to ''take a 'hard look' at the environmental consequences'' of an action, as appropriate.[504] Significantly, ''[i]f the adverse environmental [impacts] of the proposed action are adequately identified and evaluated, the agency is not constrained by NEPA from deciding that other values outweigh the environmental costs.'' [505] NHTSA considers the impacts reported in the Draft SEIS, in addition to the other information presented in this preamble, the Draft TSD, and the PRIA, as part of its decision-making process.

Per DOT Order 5610.1D, NHTSA considers a ''no action'' alternative in its NEPA analyses and presents the environmental impacts of the proposal and alternatives, including the No-Action Alternative, in comparative form.[506] The range of CAFE standard action alternatives, including the No-Action Alternative, encompasses a spectrum of possible fuel economy standards that NHTSA could determine is the maximum feasible based on the different ways NHTSA could weigh the applicable statutory factors. The agency's Draft SEIS describes the reasonably foreseeable impacts for all alternatives across a variety of environmental resources, including energy, air quality, emissions effects, and historic and cultural resources. The impacts of the Proposed Action are discussed in proportion to their significance, qualitatively and quantitatively, as applicable.[507] The findings of the analysis are summarized here, and more detailed discussion—in particular for any qualitative resource assessment—can be found in the Draft SEIS.

Reasonably foreseeable energy impacts from the Proposed Action include changes in vehicle fuel consumption. All three action alternatives would increase fuel consumption compared to the No-Action Alternative,[508] with fuel consumption increases that range from 71 billion gasoline gallon equivalents (GGE) under Alternative 3 to 77 billion GGE under Alternative 1 and Alternative 2 (the Preferred Alternative).

The relationship between CAFE standards and criteria pollutant and air toxics emissions is less straightforward than the relationship between CAFE standards and energy use, because the criteria pollutant and air toxics relationship reflects the complex interactions among many factors. In general, emissions of criteria air pollutants decrease with increasing stringency. However, the analysis shows that the action alternatives would result in different levels of emissions when measured against projected trends under the No-Action Alternative. These reductions and increases in emissions would vary by pollutant, calendar year, and action alternative. The differences in national emissions of criteria air pollutants among the action alternatives compared to the No-Action Alternative would range from less than 1 percent to about 4 percent. Adverse health outcomes from criteria pollutant emissions are expected to increase nationwide in 2035 and 2050 under all action alternatives relative to the No-Action Alternative. This is due primarily to increases in downstream emissions, particularly of $PM_{2.5}$. The increases in health effects would stay the same or get smaller from Alternatives 1 and 2 to Alternative 3 in 2035 and 2050, reflecting the generally greater stringency of Alternative 3. However, emissions still decrease over time with each action alternative.

Toxic air pollutant emissions would remain the same or increase in 2035 and 2050 for all action alternatives relative to the No-Action Alternative. The increases stay the same or get larger from Alternatives 1 and 2 to Alternative 3 for acetaldehyde (in 2050), acrolein (in 2035 and 2050), 1,3-butadiene (in 2035 and 2050), and formaldehyde (in 2050), but get smaller for acetaldehyde (in 2035), benzene (in 2035 and 2050), DPM (in 2035 and 2050), and formaldehyde (in 2035). The largest relative increases in emissions generally would occur for formaldehyde for which emissions would increase by as much as 3.8 percent under Alternatives 1 and 2 in 2050 compared to the No-Action Alternative. Percentage increases in emissions of acetaldehyde, acrolein, 1,3-butadiene, benzene, and DPM would be less. The smaller increases are not expected to lead to measurable changes in concentrations of toxic air pollutants in the ambient air. For such small changes, the impacts of those action alternatives would be essentially equivalent. The larger increases in emissions could lead to changes in ambient pollutant concentrations.

Overall changes in health effects due to air pollution are expected to be consistent with any resulting emissions trends. Higher emissions would be expected to lead to an overall increase in adverse health effects while lower emissions would be expected to lead to a decrease in adverse health effects. The changes in health effects due to changes in emissions also are dependent on geographic population distribution, meteorological and topographical conditions, and people's proximity to roadways and upstream facilities.

The Proposed Action and alternatives would result in slight increases in CO_2 concentrations, surface temperature, sea level, and precipitation, and a slight decrease in ocean pH compared to the No-Action Alternative, based on projections using a reduced-complexity climate model. They also could, to a small degree, increase the impacts and risks of climate trends. Uncertainty exists regarding the magnitude of impact on these climate variables, as well as to the impacts and risks of climate trends. The impacts of the Proposed Action and alternatives on global mean surface temperature, precipitation, sea level, and ocean acidification would be small in relation to global emissions trajectories. This is because of the global and multi-sectoral nature of climate trends. These impacts also would occur on a global scale and would not affect the United States disproportionately. To put these emissions changes in perspective, the emissions increase from all passenger cars and light trucks in 2035 compared with emissions under the No-Action Alternative are approximately equivalent to the annual emissions from 7,727,819 vehicles under Alternatives 1 and 2, and 7,143,671 vehicles under Alternative 3. For reference, a total of 252,733,312 passenger cars and light trucks are projected to be on the road in 2035 under the No-Action Alternative.[509]

In cases where quantitative impacts assessment was not possible, NHTSA presented the findings of a literature review of scientific studies for

[504] *Baltimore Gas & Elec. Co.* v. *Natural Resources Defense Council, Inc.,* 462 U.S. 87, 97 (1983).

[505] *Robertson* v. *Methow Valley Citizens Council,* 490 U.S. 332, 350 (1989).

[506] DOT Order 5610.1D, sec. 13.e.

[507] Section 13.g(2) of DOT Order 5610.1D.

[508] Total light-duty vehicle fuel consumption from 2024 to 2050 under the No-Action Alternative is projected to be 2,867 billion gasoline gallon equivalents (GGE).

[509] The light-duty vehicle equivalency is based on an average per-vehicle emissions estimate, which includes both tailpipe CO_2 emissions and associated upstream emissions from fuel production and distribution. The average light-duty vehicle is projected to account for 4.66 metric tons of CO_2 emissions in 2035 based on MOVES, the GREET model, and EPA analysis.

informational purposes in the Draft SEIS.

The SEIS is one factor in NHTSA's decision-making process to set CAFE standards. NHTSA evaluated the range of reasonable alternatives in the Draft SEIS, along with other factors during the rulemaking process and tentatively determined that Alternative 2 is the Preferred Alternative because it is maximum feasible. NHTSA is informed by the Draft SEIS in arriving at its conclusion that Alternative 2 is maximum feasible.

D. Severability

For the reasons discussed above, NHTSA believes that its authority to propose and implement CAFE standards for the MYs 2022–2026 and 2027–2031 is well-supported in law and practice and should be upheld in any legal challenge. NHTSA also believes that its exercise of authority reflects sound policy.

However, in the event that any portion of the proposed rule is declared invalid, NHTSA intends that the various aspects of the proposal be severable and, specifically, that each set of proposed standards, for MYs 2022–2026 and MYs 2027–2031, is severable, as well as the various compliance proposals discussed in the following section of this preamble. The proposed standards for MYs 2027–2031 could be implemented independently if any of the other proposed standards were struck down, and NHTSA firmly believes that it would be in the best interests of the Nation for the standards to be applicable to support EPCA's overarching purpose of energy conservation. Each proposed standard is justified independently on both legal and policy grounds and could be implemented effectively by NHTSA.

VI. Compliance and Enforcement

NHTSA is proposing changes to its CAFE enforcement program for light-duty automobiles. These changes include: (1) modifying the criteria for classification as a non-passenger automobile; (2) removing credit trading from the CAFE program beginning with MY 2028; (3) removing references to EPA's regulations regarding manufacturers' ability to generate AC efficiency and OC FCIVs; (4) modifying manufacturer reporting requirements; and (5) making other technical amendments. To provide context for these changes, Section VI.A first provides an overview of NHTSA's CAFE enforcement program. Section VI.B then discusses and explains the proposed changes to the CAFE program.

A. Background and Overview of Compliance and Enforcement

NHTSA's CAFE enforcement program is largely established by EPCA, as amended by EISA, and is prescriptive regarding enforcement. EPCA and EISA also establish a number of flexibilities and incentives that are available to manufacturers to help them comply with the CAFE standards. The statute also authorizes NHTSA to establish, at its discretion, additional flexibilities by regulation. The light-duty CAFE program includes all vehicles with a gross vehicle weight rating (GVWR) of 8,500 pounds or less as well as vehicles between 8,501 and 10,000 pounds that are classified as medium-duty passenger vehicles (MDPVs).[510] [511] Table VI–1 provides an overview of the CAFE program, including statutory and regulatory citations, and an overview of the changes proposed in this NPRM.

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[510] As prescribed in 49 U.S.C. 32901(a)(19)(B), an MDPV is ''defined in section 86.1803–01 of title 40, Code of Federal Regulations, as in effect on the date of the enactment of the Ten-in-Ten Fuel Economy Act.'' In accordance with the statutory definition, NHTSA defines MDPV at 49 CFR 523.2 as any complete or incomplete motor vehicle rated at more than 8,500 pounds GVWR and less than GVWR that is designed primarily to transport passengers, but does not include a vehicle that: (1) Is an ''incomplete truck'' meaning any truck that does not have the primary load carrying device or container attached; or (2) Has a seating capacity of more than 12 persons; or (3) Is designed for more than 9 persons in seating rearward of the driver's seat; or (4) Is equipped with an open cargo area (for example, a pickup truck box or bed) of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area for purposes of this definition.

[511] See ''heavy-duty vehicle'' definition in 40 CFR 86.1803–01. MDPVs are classified as either passenger automobiles or light trucks depending on whether they meet the criteria to be a non-passenger automobile under 49 CFR 523.5. If the MDPV is classified as a non-passenger automobile by meeting the requirements in 49 CFR 523.5, it is subject to the requirements in 49 CFR 533. If the MDPV does not meet the criteria in 49 CFR 523.5 to be a non-passenger automobile, then it is classified as a passenger automobile and subject to the requirements in 49 CFR 531.

Table VI-1: Overview of Compliance for the CAFE Program

Fleet Performance Requirements			
Component	**Applicable Regulation (Statutory Authority)**	**General Description**	**Proposed Changes in NPRM**
Fuel Economy Standards	49 CFR 531.5 and 49 CFR 533.5 (49 U.S.C. 32902)	Fuel economy standards are footprint-based fleet average standards for each of a manufacturer's compliance category (i.e., domestic passenger automobile, import passenger automobile, and non-passenger automobile), which are expressed in miles per gallon (mpg). NHTSA sets average fuel economy standards that are the maximum feasible for each compliance category and model year (i.e., passenger automobiles and non-passenger automobiles). In setting these standards, NHTSA considers technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the U.S. to conserve energy. NHTSA is precluded from considering the fuel economy of vehicles that operate only on alternative fuels, the portion of operation of a dual-fueled vehicle powered by alternative fuel, and the trading, transferring, or availability of credits.	Amendments to 49 CFR 531.5(a) and 49 CFR 533.5(a) to set standards for MYs 2022-2026 and MYs 2027-2031.
Vehicle Classification	49 CFR part 523	Standards are set for two regulatory categories (i.e., passenger automobiles and non-passenger automobiles). Vehicles are assigned to either the passenger automobile or non-passenger automobile categories based on definitions in EPCA, as implemented through definitions and specific criteria in NHTSA's regulations.	Amendments to 49 CFR part 523 to amend the criteria for non-passenger automobiles.
Minimum Domestic Passenger Car Standards	49 CFR 531.5 (49 U.S.C. 32902(b)(4))	Domestic passenger automobile fleets are required to meet the MDPCS. This standard applies in addition to the footprint-based standard.	Amendments to 49 CFR 531.5(b) to set MDPCS for MYs 2022-2026 and MYs 2027-2031.
Determining Average Fleet Performance			
Component	**Applicable Regulation (Statutory Authority)**	**General Description**	**Proposed Changes in NPRM**
2-Cycle Testing	49 CFR 531.6(a) citing 40 CFR part 600 and 49 CFR 533.6 citing 40 CFR part 600	Vehicle testing is conducted by EPA using the Federal Test Procedure (light-duty FTP or "city" test) and Highway Fuel Economy Test (HFET or "highway" test).	None

	(49 U.S.C. 32904)		
AC Efficiency FCIVs	49 CFR 531.6(b)(1) citing 40 CFR 86.1868-12 and 49 CFR 533.6(c)(1) citing 40 CFR 86.1868-12 (49 U.S.C. 32904)	This adjustment to the results of the 2-cycle testing for fuel consumption improvement from technologies that improve AC efficiency that are not accounted for in the 2-cycle testing. The AC efficiency FCIV program began in MY 2017 for NHTSA. Starting in MY 2027, AC efficiency FCIVs may only be generated by ICE vehicles.	Amendments to 49 CFR 531.6 and 533.6 to remove references to EPA's regulations for AC efficiency FCIVs.
OC FCIVs	49 CFR 531.6(b)(2) and (3) citing 40 CFR 86.1869-12 and 49 CFR 533.6(c)(3) and (4) citing 40 CFR 86.1869-12 (49 U.S.C. 32904)	This adjustment to the results of the 2-cycle testing for fuel consumption improvement from technologies that are not accounted for or not fully accounted for in the 2-cycle testing. The OC FCIV program began in MY 2017 for NHTSA. Starting in MY 2027, OC FCIVs may only be generated by ICE vehicles, with the program phasing out and ending with MY 2032 under EPA's current regulations.	Amendments to 49 CFR 531.6 and 533.6 to remove references to EPA's regulations for OC FCIVs.
Advanced Full-Size Pickup Truck FCIVs	49 CFR 533.6(c)(2) citing 40 CFR 86.1870-12 (49 U.S.C. 32904)	This adjustment increases a manufacturer's average fuel economy for full-size pickup trucks equipped with hybridized or other performance-based technologies. Manufacturers were eligible to earn these adjustments in MYs 2017-2021 and MYs 2023-2024.	None
Dedicated Alternative-Fueled Vehicles	49 CFR 536.10 citing 40 CFR 600.510-12(c) (49 U.S.C. 32905(a) and (c))	EPA calculates the fuel economy of dedicated alternative fueled vehicles assuming that a gallon of liquid/gaseous alternative fuel is equivalent to 0.15 gallons of gasoline per 49 U.S.C. 32905(a). For BEVs, EPA uses the petroleum equivalency factor as defined by the DOE (*see* 10 CFR 474.3) (per 49 U.S.C. 32904(a)(2)).	None
Dual-Fueled Vehicles	49 CFR 536.10 citing 40 CFR 600.510-12(c) (49 U.S.C. 32905(b), (d), and (c)) and (49 U.S.C. 32906(a))	EPA calculates the fuel economy of dual-fueled vehicles using a utility factor to account for the portion of power energy consumption from the different energy sources. For EVs, EPA uses DOE's petroleum equivalency factor for the electric portion of the vehicle's expected energy use (per 49 U.S.C. 32904(a)(2)). Starting in MY 2020 and subject to statutory limit, the average fuel economy of certain dual-fueled vehicles cannot increase a manufacturer's average fuel economy.	None
Earning and Using Credits for Over-compliance and Addressing Shortfalls			
Earning Credits	49 CFR 536.4 (49 U.S.C. 32903(a))	Manufacturers earn credits for each one tenth of mile by which the average fuel economy vehicles in a particular compliance category in a model year exceed the applicable fuel economy standard, multiplied by the number of vehicles sold in that compliance category (i.e., fleet).	None
Carry-Forward Credits	49 CFR part 536 (49 U.S.C. 32903(a)(2))	Manufacturers may carry forward credits up to five model years into the future.	None

Carry-Back Credits	49 CFR part 536 (49 U.S.C. 32903(a)(1))	Manufacturers may carry back credits up to three model years into the past.	None
Credit Transfers	49 CFR part 536 (49 U.S.C. 32903(g))	Manufacturers may transfer credits between their fleets to increase a fleet's average fuel economy by up to 2 mpg. Manufacturers may not use transferred credits to meet the MDPCS (*see* 49 U.S.C. 32903(g)(4) and 49 CFR 536.9).	None
Credit Trading	49 CFR 536.8 (49 U.S.C. 32903(f))	Manufacturers may trade over-compliance credits into fleets of the same compliance category. A manufacturer may then transfer those credits to a different compliance category, but only up to the 2-mpg limit for transfers. Manufacturers may not use traded credits to meet the (*see* 49 U.S.C. 32903(f)(2) and 49 CFR 536.9).	Amendments to 49 CFR 536.6 and 536.8 to reflect that beginning in MY 2028 credit trading will no longer be allowed.
Civil Penalties	49 CFR 578.6(h) (49 U.S.C. 32912)	Civil penalties may be assessed for CAFE credit shortfalls that are not resolved through credit flexibilities. Pub. L. 119-21 set civil penalties for the CAFE program to $0. This new value applies starting in MY 2022.	None[512]

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In general, as prescribed by Congress, NHTSA sets fleet average fuel economy standards for light-duty vehicles on an mpg basis. As specified in statute, light-duty vehicles are separated into three separate compliance categories: passenger automobiles manufactured domestically (referred to as domestic passenger cars), passenger automobiles not manufactured domestically (referred to as imported passenger cars), and non-passenger automobiles (which are also referred to as light trucks).[513] Each standard applies to a manufacturer's compliance category as a whole and not to individual vehicles, and a manufacturer can balance the performance of their vehicles (via the application of fuel-saving technology) in complying with standards. NHTSA sets standards based on vehicle footprint (*i.e.,* the area calculated by multiplying the wheelbase times the track width), and each manufacturer must comply with the fleet average standard derived from their vehicles' target standards. These target standards are taken from a set of mathematical functions for each fleet. While NHTSA sets the standards for light-duty vehicles, EPA, as authorized and directed by EPCA, establishes procedures for calculating a manufacturer's average fuel economy for CAFE compliance. Average fuel economy values are based on vehicle testing conducted using the FTP (or ''city'' test) and HFET (or ''highway'' test).[514]

At the end of each model year, EPA determines the fleet average fuel economy performance for the individual fleets as determined by procedures set forth in 40 CFR part 600. NHTSA then confirms whether a manufacturer's fleet average fuel economy performance for each of its compliance categories of light-duty vehicles meets the applicable target-based fleet standard. NHTSA makes its final determination of whether a manufacturer has met its CAFE compliance obligation based on official reported and verified CAFE data received from EPA. Pursuant to 49 U.S.C. 32904(e), EPA is responsible for calculating manufacturers' CAFE values so that NHTSA can determine compliance with its CAFE standards. A manufacturer's final model year report must be submitted to EPA no later than May 1st following the end of the model year.[515] EPA verifies the data submitted by manufacturers and issues final CAFE reports that are sent to manufacturers and to NHTSA electronically between April and October of the calendar year following the end of model year. NHTSA then assesses each manufacturer's compliance for each of their fleets and calculates each manufacturer's credit amounts (credits for vehicles exceeding the applicable CAFE standard) and shortfalls (amount by which a fleet fails to meet the applicable CAFE standards). A manufacturer meets NHTSA's fuel economy standard if its fleet average performance is greater than or equal to its required standard.

If one of a manufacturer's compliance categories fails to meet its fuel economy standard, NHTSA will provide written notification to the manufacturer that it has not met the standard. The written notification will also include the shortfall amount for each compliance category, which is calculated using the following equation: (Fuel Economy Achieved − Fuel Economy Standard) × 10 × Production Volume. To determine the civil penalty amount, NHTSA multiplies the total shortfall (in credits) by the applicable civil penalty rate.[516] When the manufacturer receives the written notification, it will be required to confirm the shortfall amount and submit a plan indicating how it will allocate existing credits or earn, transfer, and/or acquire credits to apply toward the shortfall, or inform NHTSA of its intention to pay a civil penalty to resolve the shortfall.[517] [518] The manufacturer must submit a plan or applicable civil penalty payment within

[512] Updating the CAFE civil penalties regulations in 49 CFR 578.6(h) to reflect the statutory amendment in Public Law 119–21 (OB3) will occur in the next DOT-wide annual civil penalties update rulemaking.

[513] 49 U.S.C. 32903(g)(6)(B).

[514] 40 CFR part 600.

[515] 40 CFR 600.512–12(b).

[516] For MY 2022 and beyond the applicable civil penalty rate is $0. Public Law 119–21 (OB3), 139 Stat. 72 (July 4, 2025). *https://www.congress.gov/119/plaws/publ21/PLAW-119publ21.pdf.*

[517] In accordance with 49 U.S.C. 32903(g)(3)(C), the maximum increase in any compliance category attributable to transferred credits is 2.0 mpg.

[518] In accordance with 49 U.S.C. 32903(f)(2) and (g)(4), manufacturers are restricted from using traded and transferred credits to resolve MDPCS shortfalls.

60 days of receiving the written notification from NHTSA. Credit allocation plans and carryback plans (*i.e.,* plans to use future earned or acquired credits to apply toward the shortfall) received from the manufacturer will be reviewed by NHTSA, and NHTSA will approve a credit allocation plan unless it finds the proposed credits are unavailable or that it is unlikely that the plan will result in the manufacturer earning sufficient credits to offset the shortfall. If a plan is rejected, NHTSA will notify the manufacturer and request a revised plan.

B. Proposed Changes to the CAFE Program

Consistent with the overall reset of the CAFE program discussed earlier in Section V, NHTSA is proposing two changes intended to align NHTSA's regulations with EPCA in a manner that will better effectuate the statutory purpose of the CAFE program. First, NHTSA is proposing to amend the criteria for classification as a non-passenger automobile to align NHTSA's regulations with the best reading of the statue.[519] Second, NHTSA is proposing to end credit trading between manufacturers in MY 2028 (*i.e.,* MY 2027 will be the last year in which manufacturers may use traded credits to satisfy shortfalls). NHTSA is also proposing technical amendments to its regulations to remove references to EPA's regulations for OC FCIVs, and proposing to make modifications to reporting requirements, and to make a few technical amendments. The proposed changes are discussed in detail in the following sections.

1. Modification of Vehicle Classification in the CAFE Program

NHTSA is proposing to amend the criteria for non-passenger automobiles. This proposal is informed by an examination of how NHTSA's vehicle classification criteria in 49 CFR part 523, *Vehicle Classification,* align with and implement the vehicle definitions in 49 U.S.C. 32901.

This is not the first time NHTSA has examined this issue. In its 2010 and 2012 final rules, NHTSA considered amending its vehicle classification regulations but ultimately decided to monitor and revisit them in future rulemakings.[520] [521] Notably, NHTSA stated that ''no one can predict with certainty how the market will change between now and 2025'' specifically regarding how vehicle manufacturers may ''make more deliberate redesign efforts to move vehicles out of the car fleet and into the truck fleet in order to obtain the lower target.'' [522] It is now 2025, and NHTSA has completed an updated analysis using current data.

The starting point of NHTSA's analysis was a recognition of the market shift from passenger automobiles to non-passenger automobiles (as currently classified) in the light-duty vehicle market. In 1975, non-passenger automobiles represented 19.3 percent of the light-duty automobile market,[523] and today they make up 64.7 percent.[524] Figure VI–1 below illustrates the year-over-year light-duty fleet shares of passenger automobiles and non-passenger automobiles over the last 50 model years (*i.e.,* from 1975 to 2024).

[519] 90 FR 24524 (June 11, 2025).

[520] 75 FR 25661 (May 7, 2010).

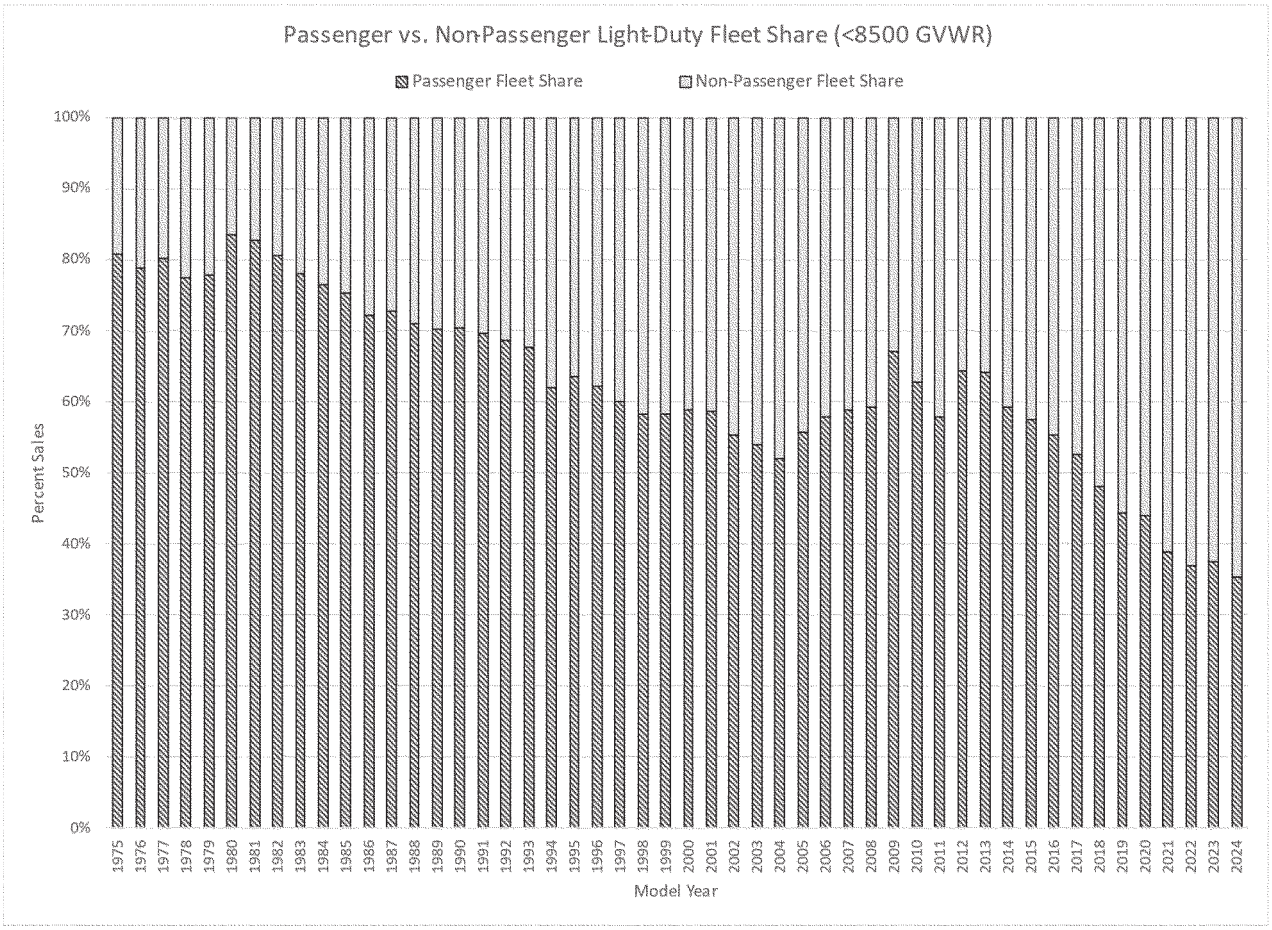
[521] 77 FR 63124 (Oct. 15, 2012).

[522] 77 FR 63122 (Oct. 15, 2012).

[523] DOE, Composition of New U.S. Light-Duty Vehicles by Vehicle Type, Last revised: Jan. 2024, available at: *https://afdc.energy.gov/data/10306* (accessed: Sept. 10, 2025).

[524] This is based on MY 2024 mid-model year reporting and includes dedicated alternative fuel automobiles. Considering only vehicles that are powered by internal combustion engines, the share of automobiles classified as non-passenger automobiles is 67.9 percent.

Figure VI-1: Passenger Versus Non-Passenger Automobile YoY Fleet Share



Leading up to the 2010 and 2012 final rules there was no clear year-over-year trend in the share of each fleet, but the fleet composition has since steadily and sharply continued the long-term trend towards non-passenger automobiles. As discussed in Draft TSD Chapter 1, multiple factors likely have contributed to this trend, including, of particular relevance, NHTSA's vehicle classification criteria. Based on its new analysis, NHTSA believes that the criteria it uses to delineate between the fleets need to be changed to ensure that the classification of the fleets meets the intent by Congress when it enacted EPCA. These changes and the processes by which they were evaluated are described in detail in the subsequent paragraphs and sections.

To assess how the current criteria in section 523.5 of NHTSA's regulations align with the statutory definitions and intent, NHTSA conducted an analysis beginning with the compiled classification data from manufacturers' MY 2024 mid-model year fuel economy compliance reports.[525] To supplement this information, NHTSA conducted extensive research using publicly available manufacturer publications, such as owner's manuals, marketing brochures, and specification sheets,[526] to develop a comprehensive dataset of vehicle models and any non-passenger automobile criteria that each vehicle model meets. This additional research was necessary, as manufacturers' mid-model year reports generally only provide the minimum data needed to demonstrate qualification as a non-passenger automobile. For example, for a three-row SUV that qualifies as a non-passenger automobile via 49 CFR 523.5(a)(5), the manufacturer may not provide data on off-highway angles and clearances specified in 49 CFR 523.5(b)(2). Incorporating this data made it possible for NHTSA to check all possible regulatory pathways that could qualify a vehicle as a non-passenger automobile. A detailed discussion of how the MY 2024 analysis fleet dataset was developed and used can be found in Draft TSD Chapter 2.7.[527] The agency seeks comment and supporting material from manufacturers and stakeholders for any vehicle in the dataset found to contain erroneous or missing data that would impact the outcome of this analysis.

Based on this analysis, NHTSA is proposing to amend the criteria for non-passenger automobiles to align with the best reading of the statute. These changes are discussed in detail in the following sections.

a. Non-Passenger Automobile Definition

EPCA requires NHTSA to set separate maximum feasible standards for ''passenger automobiles'' and ''non-

[525] As required in 49 CFR 537.7(c)(5).

[526] The catalog of reference specification sheets (broken down by manufacturer, by nameplate) used to populate and confirm missing information for vehicle reclassification is available on NHTSA's website. BMW Data, Ferrari Data, FCA Data, Ford Data, Hyundai Data, Ineos Data, Kia Data, Mazda Data, Mercedes Data, Mullen Data, Nissan Data, Subaru Data, Toyota Data, Volvo Data, GM Data, Honda Data, Mitsubishi Data, VW Data, Jaguar Land Rover (JLR) Data, and Vinfast Data.

[527] See Non-Passenger_Analysis.xlsx, Docket No. NHTSA–2025–0491 for the complete dataset used in the analysis.

passenger automobiles.'' All vehicles in the light-duty fleet are classified into one of these two categories based on the presence or lack of certain vehicle characteristics and features. EPCA defines, at 49 U.S.C. 32901(a)(17), a non-passenger automobile to mean ''an automobile that is not a passenger automobile or a work truck.'' By statute, the definition of non-passenger automobile is linked to the definition of passenger automobile found at 49 U.S.C. 32901(a)(18). A passenger automobile is a vehicle that NHTSA ''decides by regulation is manufactured primarily for transporting not more than 10 individuals, but does not include an automobile capable of off-highway operation'' that NHTSA decides by regulation ''has a significant feature (except 4-wheel drive) designed for off-highway operation'' and ''is a 4-wheel drive automobile or is rated at more than 6,000 pounds gross vehicle weight.'' In accordance with the statute, NHTSA has issued regulations at 49 CFR part 523 to establish criteria for determining whether a vehicle is a passenger automobile or non-passenger automobile. Under EPCA and NHTSA's regulations, there are three primary pathways for an automobile (*i.e.,* a vehicle under 10,000 pounds GVWR that is not a work truck) to be classified as a non-passenger automobile: (1) the automobile is designed to carry more than ten individuals; (2) the automobile is not manufactured primarily for transporting individuals; or (3) the automobile is capable of off-highway operation. NHTSA is proposing changes to the criteria used to classify non-passenger automobiles via the second and third pathways.[528] These proposed changes are discussed in detail in the following sections.

b. Proposed Changes to Criteria for Off-Highway Capability

The third pathway for classification as a non-passenger automobile includes automobiles ''capable of off-highway operation'' that NHTSA decides by regulation: (1) ''has a significant feature (except 4-wheel drive) designed for off-highway operation'' and (2) ''is a 4-wheel drive automobile or is rated at more than 6,000 pounds gross vehicle weight.'' [529] Through rulemaking, NHTSA determined that ''high ground clearance'' would constitute a feature designed for off-highway operation and derived a specific list of dimensions that comprise high ground clearance.[530] Specifically, the regulation requires automobiles to meet minimum prescribed values for four out of the following five dimensions: running clearance, axle clearance, approach angle, breakover angle, and departure angle. When issuing these criteria, NHTSA explained that the agency arrived at these values ''[a]fter comparing the ground clearance of automobiles used on highways only with automobiles used off as well as on the highway.'' [531] In the final rule, NHTSA noted that Ford and International Harvester commented that the five ground clearance measurements proposed in the NPRM would adequately serve to distinguish automobiles capable of off-highway operation from other automobiles. The agency also stated that ''[i]f a need arises in the future to establish additional criteria, the NHTSA will initiate rulemaking.'' [532] After almost 50 years, NHTSA is now re-evaluating whether the criteria appropriately differentiate between vehicles that are and are not capable of off-highway operation. After conducting a new analysis using the MY 2024 fleet, NHTSA is proposing two changes to the existing standard for determining high ground clearance, which are discussed in detail below. To provide adequate lead time, NHTSA is proposing that these changes take effect in MY 2028.

First, beginning in MY 2028, NHTSA proposes to eliminate axle clearance as a characteristic used to define a vehicle with high ground clearance, which is currently set 2 centimeters below the running clearance threshold. The objective of high ground clearance as an off-highway feature is to describe automobiles capable of off-highway operation. The axle configuration most impacted by the axle clearance characteristic is the solid axle, where the differential must be housed and vertically centered along a linear path between the center of the wheels on either side of the axle. In contrast, independent axles can vertically center the differential gears above the same linear path, effectively making running clearance the only constraining vertical measurement. Solid axles excel in off-highway operation at the expense of on-highway ride quality. NHTSA finds that creating an additional clearance characteristic that typically applies only to this axle type does not align with the statutory intent that the significant feature would indicate off-highway capability, and the agency therefore proposes to remove it.

Second, also beginning with MY 2028, NHTSA proposes that vehicles classified as non-passenger automobiles under the off-highway criteria meet the given thresholds for all four of the remaining characteristics that comprise the high ground clearance feature. NHTSA is not proposing to change the thresholds themselves, and they would thus remain the same. Using the MY 2024 fleet classification data, NHTSA determined the manufacturing volumes of vehicles that qualified as non-passenger automobiles based on the vehicle's having a high ground clearance, as determined by meeting at least four of the five factors, as well as the angle and clearance values of each of those vehicles. Of particular importance was determining the subset of vehicles that met both the GVWR or 4WD off-highway criteria described in 49 CFR 523.5(b)(1) and exactly four of the five existing off-highway criteria described in 49 CFR 523.5(b)(2). NHTSA found that within this subset of current off-highway classified automobiles: [533]

- 98.9 percent do not meet the approach angle minimum threshold of 28 degrees.
- The remaining 1.1 percent of vehicles are from a single nameplate.[534]
- 66.2 percent have an approach angle of less than the required departure angle of 20 degrees.[535]

After reviewing this data, NHTSA took a closer look at why so few vehicles in this category meet the approach angle requirement and whether this vehicle feature is necessary for off-highway operation. The vehicle attributes outlined in 49 CFR 523.5(b)(2) include approach angle, breakover angle, departure angle, and running clearance, which work together to define what NHTSA believes represents a vehicle designed with an off-highway capability intent, without having to define the off-highway environment explicitly. The approach angle attribute is of particular importance because it is the first feature of a vehicle to engage

[528] The first criterion is set in statute and NHTSA thus does not have authority to change it by regulation. While the third criterion is also set in statute, EPCA (as amended by EISA) provides the Secretary of Transportation with the flexibility to decide by regulation a significant feature (except 4-wheel drive) indicating that the automobile was designed for off-highway operation.

[529] 49 U.S.C. 32901(a)(18).

[530] 41 FR 55371 (Dec. 20, 1976).

[531] 41 FR 55371 (Dec. 20, 1976).

[532] 42 FR 38367 (July 28, 1977).

[533] All percentages described were evaluated using ''Non-Passenger_Analysis.xlsx'' in Docket No. NHTSA–2025–0491, tab ''Existing Reg Classification.''

[534] The Kia Seltos has a running clearance of 7.3 inches (~18.5 cm), below the 20 cm threshold. It has an approach angle of 28.0 degrees, meeting the minimum threshold.

[535] An approach angle less than the minimum required departure angle for off-highway capability would mean that the automobiles represented in this bullet are geometrically more capable off-highway when driven in reverse.

with an off-highway obstacle or grade and will determine whether the vehicle can navigate the obstacle. If the vehicle does not have the ability to approach the obstacle, then the other off-highway attributes become irrelevant. Because of the varying nature of off-highway environments and the equally varying ways to navigate them, the approach angle is set higher to maximize the capability of the other vehicle attributes. This higher approach angle feature can also be seen on vehicles in the 2024 fleet that are specifically designed with high levels of off-highway capability such as the Jeep Wrangler, Ford Bronco, and Land Rover Defender.[536] NHTSA determined in its analysis that manufacturers are significantly reducing the approach angle to as low as 14 degrees in pursuit of on-road aerodynamic improvements, ultimately degrading off-highway capability. NHTSA sees the approach angle as an important off-highway vehicle attribute, which is why it was originally and continues to be set at 28 degrees. The agency finds this approach angle observation as a clear indication that regulatory definitions have caused shifts in vehicle design characteristics, where manufacturers apply the remaining high ground clearance characteristics (breakover angle, departure angle, and running clearance) to vehicles otherwise not intended for off-highway operation. The passenger automobile fleet's fuel economy stringencies originated and evolved at a time when high-frontal area automobiles that consumers have shown a preference for were not present in the light-duty fleet. The gradual introduction of and accompanying consumer preference for high frontal area passenger-carrying automobiles made it difficult for manufacturers to meet the passenger automobile CAFE standards, which had originated and evolved prior to the widespread proliferation of this type of light-duty vehicle. Manufacturers, therefore, applied 4 out of the 5 high ground clearance characteristics, retaining aerodynamic (*i.e.,* low) approach angles that severely limit off-highway capability for the sole purpose of placing these vehicles in the non-passenger automobile fleet. NHTSA is proposing to correct this divergence between fleet composition and off-highway statutory intent by re-establishing the standard curves using a fleet allocation that better aligns with the statute. This proposed reclassification would eliminate the need for manufacturers to decide between unnecessary high ground clearance characteristics and achieving passenger automobile fuel economy standards.

As part of its evaluation of the criteria for off-highway capability, NHTSA also investigated the statute's ''4-wheel drive'' off-highway feature, specifically with regard to the differences between 4WD (4x4) and AWD drivetrains. Currently, 4WD and AWD technologies are both considered to meet the 4WD statutory directive in regulation.[537] The agency found that there is significant overlap in present-day 4WD and AWD peripheral technologies, such as axle differential locks, interaxle locks, low-range gearing and torque availability, and intelligent traction control systems that make it difficult, if not impossible, to assess off-highway ability based on the exclusively differentiating features of 4WD and AWD systems. NHTSA seeks comment on this assessment but is not currently proposing to change its position that any drivetrain capable of sending power to all four wheels, including both 4WD and AWD systems, meets the statute's intent.

c. Proposed Changes to Criteria for Functional Performance

A passenger automobile is defined, in part, as an automobile that is ''manufactured primarily for transporting not more than 10 individuals.'' [538] When the agency first issued vehicle classification regulations for the CAFE program in 1977, the agency grappled with the meaning of the lone word ''primarily'' in addition to the meaning of the phrase ''manufactured primarily for transporting not more than 10 individuals'' in the context of vehicle classification.[539] Ultimately, NHTSA determined that the phrase consisted of two criteria for passenger automobiles: (1) that passenger automobiles must be designed to carry 10 or fewer persons and (2) that passenger automobiles are ''chiefly'' for carrying persons. In the 1977 final rule, NHTSA noted that if ''primarily'' were interpreted to mean ''substantially,'' then almost every automobile would be a passenger automobile, because a substantial function of almost every automobile is to transport passengers. Because this was clearly not the intent of Congress, NHTSA instead interpreted the word ''primarily'' to mean ''chiefly'' or ''predominantly'' [540] and established criteria for the classification of an automobile as a non-passenger automobile based on the presence of certain chief characteristics. In the 1977 final rule, NHTSA stated its belief that Congress clearly intended that ''passenger automobile'' include only those vehicles traditionally regarded as passenger cars (*i.e.,* vehicles whose major design features, including body style, reflect the purpose of carrying persons). NHTSA also provided examples of design features that, singly or in combination, would indicate that an automobile is not a passenger automobile: an open bed for carrying cargo; heavy-duty suspension; and greater cargo-carrying than passenger-carrying volume.[541]

Under this interpretation, NHTSA created five different criteria of functional performance, any one of which would qualify the vehicle as a non-passenger automobile. The first, and most obvious type, is an automobile designed for transporting more than 10 individuals.[542] The four other criteria were used to identify automobiles designed primarily or chiefly for carrying property or a derivative of an automobile designed primarily for the transportation of property and included automobiles that: (1) provide temporary living quarters; (2) transport property on an open bed; (3) provide greater cargo-carrying than passenger-carrying volume; or (4) permit expanded use of the automobile for cargo-carrying purposes through the removal of seats by means installed for that purpose by the manufacturer or with simple tools, so as to create a flat, floor level surface extending from the forwardmost point of installation of those seats to the rear of the automobile's interior.[543] The first three of these criteria have remained static over time and are codified at 49 CFR 523.5(a)(2)–(4). The fourth criteria, for automobiles derived from an automobile designed primarily for the transportation of property, has expanded over time. Currently, section 523.5(a)(5) classifies as non-passenger any automobile with at least three rows of designated seating positions as standard equipment and has foldable or pivoting seats that can be removed, stowed, or folded to create a flat, leveled surface extending from the forward most point of installation (of the third-row seat) to the rear of the automobile's interior.

After conducting an analysis of the fleet and vehicle characteristics, NHTSA no longer believes that the criteria in

[536] See Non-Passenger_Analysis.xlsx, Docket No. NHTSA–2025–0491, tab ''Existing Reg Classification.''

[537] 75 FR 25659 (May 7, 2010), Footnote 750.

[538] 49 U.S.C. 32901(a)(18).

[539] 42 FR 38365 (July 28, 1977).

[540] *Id.*

[541] 42 FR 38362, 38365 (July 28, 1977).

[542] 49 CFR 523.5(a)(1).

[543] 42 FR 38367 (July 28, 1977).

section 523.5(a)(5) is in accordance with the best reading of the statute. NHTSA's analysis has indicated that many vehicles that qualify as non-passenger automobiles solely on this criterion (*i.e.,* the automobile does not meet any of the other criteria to be a non-passenger automobile) would be classified more appropriately as passenger automobiles: the presence of a foldable, stowable, or removable third row seat is not a significant design characteristic indicating that a chief purpose for the vehicle is to transport property. However, NHTSA's analysis also indicates that there is a subset of vehicles that are currently classified as non-passenger automobiles based on this criterion for vehicles with three or more rows of seating that NHTSA believes should remain in the non-passenger automobile category, as they have some chief design characteristics for transporting property that are not currently captured by section 523.5(a). To ensure that NHTSA's criteria for automobiles that are chiefly or significantly for transporting property effectuate the best reading of the statutory definitions, NHTSA is proposing two changes to the criteria in section 523.5(a). First, NHTSA is proposing to remove the current criteria in section 523.5(a)(5) for vehicles with three or more rows. Second, the agency is proposing to add a new criterion premised on a performance-based light-duty work factor (LDWF) utility metric. These proposed changes are discussed in more detail below.

(1) Automobiles With Three or More Rows of Seating

As referenced above, automobiles with at least three rows of designated seating positions as standard equipment qualify as non-passenger automobiles under section 523.5(a)(5) if the removal or stowing of foldable seats creates a flat, leveled cargo surface extending from the forwardmost point of installation of those seats to the rear of the automobile's interior. The original version of this provision in the 1977 final rule was for automobiles that had removable seats, such that the automobile permits expanded use of the automobile for cargo-carrying purposes. In explaining the rationale for creating the criteria, the 1977 preamble stated:

> [I]t is not the convertibility factor alone which results in passenger vans being classified as non-passenger automobiles. It is that factor together with the derivative nature of those vans . . . . [S]ince a passenger van is designed with the same chassis, springs, and suspension system as a cargo van, it is treated in the same way as a cargo van.[544]

When 49 CFR 523.5(a)(5) was applied to the original CAFE reference fleet, it achieved its intended objective of identifying those derivative vehicles, where purchasers could have instead opted for a ''cargo'' version of that vehicle. However, unlike the other regulations in section 523.5(a), the regulation at 523.5(a)(5) does not directly describe a chief non-passenger characteristic, but rather a passenger-based design feature that does not reveal, describe, or quantify a chief non-passenger characteristic when applied to the current automobile fleet. The automobile fleet of the late 1970s was fundamentally different from the automobile fleet being manufactured and sold today as there are no ''cargo van'' derivatives ''designed with the same chassis, springs, and suspension system'' in the present-day light-duty fleet. The regulatory text at 523.5(a)(5) applied to the late-1970s fleets accommodated the derivative vehicles as they existed at the time, but that same regulatory text applied to today's fleet misaligns with the statutory intent and text. Meeting the criterion in section 523.5(a)(5) is simply not enough to indicate that the automobile is not ''manufactured primarily'' for carrying passengers. In fact, the presence of at least three rows of designated seating positions indicates the opposite, as having three rows of designated seating positions is a significant feature indicating that a primary purpose of that automobile is for carrying numerous passengers. Accordingly, NHTSA is proposing to remove 49 CFR 523.5(a)(5) as a non-passenger classification criterion beginning with MY 2028.

(2) Light-Duty Work Factor

With the proposal to remove the expanded use criterion for vehicles with three or more rows of seating, NHTSA recognizes that some automobiles that have significant functional characteristics for the transportation of property would be classified as passenger automobiles unless NHTSA were to make further amendments to the criteria in section 523.5. To address this, NHTSA is proposing a new criterion for classification as a non-passenger automobile, beginning in MY 2028. While the criterion NHTSA is proposing to remove for vehicles with three or more rows of seating is based primarily on a passenger-carrying design element (three rows of seats), NHTSA is proposing a new non-passenger automobile pathway that can be described independent of vehicle construction, platform, equipment, materials, or passenger-based metrics (such as rated cargo load[545] or seating arrangements). This new performance-based utility attribute, which NHTSA is referring to as the light-duty work factor (LDWF), would be determined based on a light-duty vehicle's ability to transport property via its payload and towing capacities. Performance-based standards preclude design or technology obsolescence by only prescribing a target without guidance or restriction on how it should be achieved. A complete discussion of NHTSA's analysis and the process by which the LDWF formula and threshold were derived can be found in Draft TSD Chapter 2.7.

NHTSA developed an analysis fleet specifically for the LDWF analysis, referred to as the LDWF analysis fleet. Beginning with the full MY 2024 non-passenger fleet, NHTSA created the LDWF analysis fleet by removing vehicles that qualified as non-passenger automobiles via any of the following pathways:

- Transport more than 10 persons.
- Provide temporary living quarters.
- Transport property on an open bed.
- Provide, as sold to the first retail purchaser, greater cargo-carrying than passenger-carrying volume.
- Has either 4WD or a GVWR of more than 6000 lbs., and meets all four of the following criteria:[546]
  - Approach angle of not less than 28 degrees
  - Breakover angle of not less than 14 degrees
  - Departure angle of not less than 20 degrees
  - Running clearance of not less than 20 centimeters

The agency opted to omit vehicles that qualified via these alternative non-passenger pathways due to their designs' containing other non-passenger characteristics or off-highway features that could skew the results of an analysis intended to evaluate whether a vehicle was designed chiefly for enhanced property-transporting utility. The remaining vehicles were subject to the LDWF analysis to evaluate an appropriate formula and threshold for the work factor.

In performing the fleet analysis to determine at what threshold of LDWF a vehicle would qualify as a non-

[544] 42 FR 38367 (July 28, 1977).

[545] Per 49 CFR 571.110 S.3, rated cargo load can be calculated as the vehicle capacity weight (payload capacity) minus 68 kg (150 lbs.) times the vehicle's designated seating capacity.

[546] These sub-bullets reflect the proposed changes to criteria for off-highway capability, which are discussed in detail in NPRM preamble Section VI.B.1.b and Draft TSD Chapter 2.7.

passenger vehicle, NHTSA recognized that many vehicles could be specified with or without a trailering package (also commonly referred to as a ''tow package'' or ''towing package''). These packages can range from minor changes, such as the inclusion of trailer wiring and a tow hitch, to more significant changes, such as higher capacity cooling packages, enhanced suspensions, or reinforced driveline components. These changes do not significantly impact the powertrain or fuel economy of the base vehicle. In other words, trailering packages unlock utility that the powertrain and vehicle platform are already designed to provide. Therefore, in establishing the LDWF analysis fleet, NHTSA assumes that for a vehicle that would qualify as a non-passenger automobile via the LDWF criterion when specified with its trailering equipment, manufacturers will in the future not remove trailering capability as standard equipment on a vehicle that is otherwise designed to include it. These maximum available towing capacities for each vehicle in the LDWF analysis fleet were applied to the dataset used in the analysis.[547]

NHTSA is proposing to calculate LDWF as the weighted sum of a vehicle's payload and towing capacities and is proposing a minimum threshold for this non-passenger criterion based on extensive analysis. In determining appropriate weighting for payload and towing capacity in the LDWF calculation, NHTSA is considering the vehicle design considerations and property-transporting capabilities of payload capacity versus towing capacity. Designing for a higher payload capacity includes considerations for axle, frame, suspension, wheel, and tire capacities. These higher capacity components add weight to the vehicle and, when combined with the additional payload capacity, may require only modest enhancements to the powertrain and driveline to maintain performance and utility characteristics. In contrast, designing for a higher towing capacity includes considerations for pulling, including frame reinforcements to resist trailer forces acting opposite the direction of motion, increases to powertrain torque and power, and reinforcing driveline components to handle the additional torque. There is also a modest consideration for payload increases when considering increases to towing capacity due to a trailer's tongue weight.[548] In addition to the more expansive design considerations, towing capacity is a more effective means of providing cargo-transporting utility. For example, the highest payload capacity in the LDWF analysis fleet is nearly 2,100 pounds, compared to the highest towing capacity of 10,000 pounds; the range of payload capacity across the entire LDWF analysis fleet spans approximately 1,500 pounds compared to a 10,000-pound spread in towing capacity. Accordingly, NHTSA is proposing a higher weighting for towing capacity when determining the LDWF.[549] Draft TSD Chapter 2.7 provides the complete analysis and also describes the differences between the LDWF and the HDPUV work-factor attribute. Both the Draft TSD Chapter 2.7 and NPRM preamble Section IX Regulatory Text provide the LDWF formula and threshold.

In connection with the proposed addition of the LDWF, NHTSA is proposing to update its definition of curb weight and add two additional definitions for ''nominal tank capacity'' and ''optional equipment'' which would be used in determining curb weight. NHTSA is changing the definition of curb weight and defining the additional terms to provide clarity regarding how NHTSA would test a vehicle to determine whether it meets the LDWF or off-road criteria for non-passenger automobiles. The update to the curb weight definition is intended to ensure that every vehicle a manufacturer reports as a non-passenger automobile meets the criteria as configured at the time of first retail purchase (*i.e.,* it must meet the criteria in any configuration offered by the manufacturer).

2. Removal of Credit Trading in the CAFE Program

Under EPCA, as amended by EISA, manufacturers are afforded several compliance flexibilities that can be used to achieve compliance with CAFE standards. While some of these flexibilities are provided to manufacturers by statute, such as the ability to carry forward and backward credits earned from over-complying with a CAFE standard in a given model year, others are provided by regulations issued at NHTSA's discretion. Credit trading among manufacturers is one flexibility that the statute authorizes but does not mandate. Credit trading refers to the ability of manufacturers or persons to sell credits to, or purchase credits from, another manufacturer. EISA gave NHTSA discretion to establish by regulation a CAFE credit trading program to allow credits to be traded between vehicle manufacturers.[550] While establishing the credit trading program is discretionary, it is also limited by statute. Total oil savings must be preserved when credits are traded, and traded credits are not permitted to be used to meet the MDPCS.[551] Under this discretionary authority, NHTSA established a credit trading program in its 2009 final rule, permitting manufacturers to trade credits earned in MY 2011 and later.[552] Under NHTSA's regulations, traded credits are subject to an ''adjustment factor'' to ensure total oil savings.[553]

NHTSA has observed, in recent years, that credit trading increasingly has been used by manufacturers of ICE vehicles to purchase credits from manufacturers of alternative fueled vehicles. As fuel economy standards increase, manufacturers generally look for the most cost-effective means of compliance. As standards increased to levels unattainable for ICE vehicles, credit trading has become an increasingly more attractive means of satisfying CAFE requirements. This situation is due, in part, to EV manufacturers' earning credits that are not representative of real-world fuel savings. The fuel economy values for EVs have been artificially high, resulting from the multiplier in the PEF [554] and EV manufacturers' generating FCIVs for AC efficiency and OC technologies that are not representative of real-world fuel savings.[555] As a result, EV manufacturers have been earning an abundance of credits. Under NHTSA's credit trading program, EV manufacturers can sell their credits to

[547] See Non-Passenger_Analysis.xlsx, Docket No. NHTSA–2025–0491, tab ''Existing Reg Classification,'' column ''Max Spec Tow Capacity (lb.).''

[548] SAE, Performance Requirements for Determining Tow-Vehicle Gross Combination Weight Rating and Trailer Weight Rating, SAE Standard J2807_202411, SAE International: Warrendale, PA, available at: *https://doi.org/10.4271/J2807_202411* (accessed: Sept. 10, 2025).

[549] The proposed weighting is ⅔ of towing capacity and ⅓ of payload capacity, with a threshold of greater than or equal to 5,500, calculated in pounds. See Draft TSD Chapter 2.7.

[550] 49 U.S.C. 32903(f).

[551] 49 U.S.C. 32903(f)(1) and (2).

[552] 74 FR 14206 (Mar. 30, 2009).

[553] 49 CFR 536.4(c).

[554] In DOE's final rule (89 FR 22041, Mar. 29, 2024), DOE explained that ''by significantly overvaluing the fuel savings effects of EVs in a mature EV market with CAFE standards in place, the fuel content factor [in the PEF] will disincentivize both increased production of EVs and increased deployment of more efficient ICE vehicles,'' which DOE concludes ''results in higher petroleum use than would otherwise occur.''

[555] In EPA's Apr. 18, 2024, final rule (89 FR 27842), EPA noted that EVs are ''receiving a windfall of credits [for AC efficiency technologies] that fails to correspond to any real-world reduction in vehicle emissions'' and that there is ''no technical basis for providing BEVs with off-cycle credits.''

ICE vehicle manufacturers, effectively subsidizing the production of EVs. This was never NHTSA's intention in establishing a credit trading program nor Congress's intention in authorizing such a program, as it creates market distortion that undermines EPCA's overarching purposes.

NHTSA is proposing to end credit trading by MY 2028, with MY 2027 being the last year in which manufacturers can use traded credits for CAFE compliance. Because NHTSA, as required by statute, is proposing standards in this rulemaking without considering alternative fueled vehicles or the use of compliance credits, NHTSA believes that manufacturers of ICE vehicles will be able to meet CAFE standards without credit trading, thus minimizing any impacts that this would have on manufacturers' decisions about what vehicles and technologies to offer in the marketplace. As shown in Section IV.B.1 Effects on Vehicle Manufacturers, NHTSA's standard-setting analysis indicates that manufacturers at both the individual fleet level and total fleet level exceed the standards year over year from MY 2028 to MY 2031. This demonstrates that NHTSA's proposed CAFE standards are achievable with ICE technologies without consideration of the factors NHTSA is prohibited from considering pursuant to 49 U.S.C. 32902(h), namely, alternative fueled vehicles and the availability of credits. The inputs for the compliance simulations that inform NHTSA's standard-setting analysis are discussed further in Section II.C.2. In addition, while NHTSA's analysis indicates that manufacturers will be able to meet the proposed standards by applying a diverse set of technologies available in the market now, manufacturers will continue to be able to transfer credits between their own fleets, subject to the 2-mpg statutory limit on how much a manufacturer can improve a fleet's average fuel economy using transferred credits.[556] NHTSA is not proposing changes to how manufacturers may transfer earned credits between different compliance fleets, such as between their domestic passenger car and non-passenger car fleets, as this form of credit transfer is permitted explicitly by statute.

The agency recognizes that manufacturers have made investments in fuel-saving technologies, which they have factored into their future design and compliance plans. Or, instead of investing in potential technology application, NHTSA recognizes that manufacturers may have reliance interests in the credit trading program to fulfill their current CAFE compliance obligations. However, NHTSA believes that its proposal to end credit trading within the CAFE program by MY 2028 provides manufacturers adequate transition time before trading ends. NHTSA has also proposed standards in this notice that explicitly do not account for manufacturers' use of credits to comply with standards. These adjustments to the fuel economy standards also should limit any potential impacts manufacturers will experience because of NHTSA's proposed programmatic changes. NHTSA seeks comment on this proposal, including on its assumptions about manufacturers' compliance pathways exclusive of credit trading as an compliance option. NHTSA also seeks comment on the extent to which the presence of credits changed manufacturer compliance behavior, and on the value of credits now that the civil penalty rate has been updated by law.

3. Technical Amendments To Remove References to EPA's Regulations for AC Efficiency and Off-Cycle Fuel Consumption Improvement Values

In its 2012 final rule, NHTSA issued regulations to align with EPA's provisions that allowed manufacturers to generate FCIVs for the adoption of AC efficiency and OC technologies beginning in MY 2017. EPA established the AC efficiency and OC programs to account for technologies that are not fully captured in the 2-cycle test procedures (FTP and HFET) that EPA uses to measure fuel economy for the CAFE program. Under EPA's provisions, FCIVs generated by manufacturers are factored into each manufacturer's calculation of its average fuel economy for purposes of CAFE compliance. As explained in Section II, NHTSA is now proposing to remove FCIVs from its standard-setting analysis starting in MY 2028. NHTSA is making this change to ensure that it sets maximum feasible standards that are achievable without consideration of technology-specific standards. Upon examination of NHTSA's existing regulations, NHTSA has identified technical changes to remove references to EPA regulations pertaining to AC efficiency and OC FCIVs.

AC efficiency technologies are technologies that reduce the operation of or the loads on the vehicle engine by reducing AC usage. For example, the less frequently the AC compressor operates or the more efficiently it operates, the less load the AC compressor places on the engine, resulting in better fuel efficiency. AC efficiency technologies can include, but are not limited to, blower motor controls, internal heat exchangers, and improved condensers/evaporators. OC technologies are technologies that also reduce the operation of ICE engines, but they cover other areas of vehicle operation. Examples of OC technologies include thermal control technologies, high-efficiency alternators, and high-efficiency exterior lighting.[557]

Under EPA's current regulations, manufacturers are eligible to earn AC efficiency and OC FCIVs for all types of automobiles equipped with those technologies in their fleet through MY 2026. Starting in MY 2027, only automobiles powered by ICEs are eligible to generate FCIVs, and the OC FCIV program is currently being phased out between MYs 2031–2033, with manufacturers no longer being able to generate OC FCIVs for MY 2033 and beyond.

NHTSA is proposing to remove the references to EPA's regulations regarding FCIVs from 49 CFR 531.6 and 49 CFR 533.6 because such references are unnecessary and create a potential for confusion. As noted above, fuel economy is calculated pursuant to testing and calculation procedures prescribed by EPA. Accordingly, NHTSA is proposing to remove the references to EPA regulations.

4. Modification of Manufacturer Reporting Requirements

In support of the proposed modifications to vehicle classification, including the new light-duty work factor (LDWF), NHTSA is proposing to make gross combined weight rating (GCWR) a required reporting element for all non-passenger automobiles in the pre-model year and mid-model year reports beginning in MY 2028. GCWR is the value specified by the manufacturer as the loaded weight of a combination vehicle. Currently, GCWR is one option that manufacturers may use to support a vehicle's classification as a full-sized pickup. NHTSA is proposing to require GCWR due in part to the proposed introduction of the LDWF, as GCWR information would be needed to determine whether an automobile qualifies as a non-passenger automobile under the LDWF criteria. NHTSA is also proposing to require GCWR for all non-passenger automobiles because it will allow NHTSA to understand fleet characteristics better, as non-passenger automobiles may qualify under multiple criteria. NHTSA is proposing that this

[556] 49 U.S.C. 32903(g)(3)(c).

[557] 40 CFR 86.1869–12(b), Credit available for certain off-cycle technologies.

change would first apply for MY 2028 reporting.

NHTSA is also proposing to remove 49 CFR 523.5(a)(5) and 49 CFR 523.5(b)(2)(v) beginning with MY 2028. Additional details regarding their removal can be found in Section VI.B.1.b and in Draft TSD Chapter 2.7. Due to these changes, starting in MY 2028 manufacturers will no longer be required to provide information related to these two regulations, which are described in 49 CFR 537.7(c)(5), paragraphs (c)(5)(i)(E) and (c)(5)(ii)(D), respectively.

C. Technical Amendments

NHTSA is proposing to make certain technical amendments through this rulemaking, which include amendments removing residual mentions of fuel efficiency standards for trailers; technical amendments removing reference to civil penalties for non-compliance with fuel economy standards; removing provisions applicable only to model years before MY 2022; and technical amendments correcting regulatory citations and incorporating minor spelling, grammatical, and formatting edits to 49 CFR parts 523, 531, 533, 536, and 537. NHTSA has included in the docket redline text highlighting all of the proposed changes to the regulations. Instructions for accessing the docket can be found in Section VII Public Participation.

1. Technical Amendments To Remove Residual Mention of Fuel Efficiency Standards for Trailers in NHTSA's Vehicle Classification Regulations

In November 2021, the United States Court of Appeals for the District of Columbia ''vacate[d] all portions of the [2016 joint NHTSA and EPA] rule that apply to trailers.'' [558] The underlying statute authorizes NHTSA to examine the fuel efficiency of and prescribe fuel economy standards for ''work trucks and commercial medium-duty or heavy-duty on-highway vehicles.'' 49 U.S.C. 32902(b)(1)(C); 49 U.S.C. 32902(k)(2). The court reasoned that trailers do not qualify as ''vehicles'' when that term is used in the fuel economy context because trailers are motorless and use no fuel. *Truck Trailer Mfrs. Ass'n, Inc.,* 17 F.4th at 1200, 1204–08. Accordingly, the court held that NHTSA does not have the authority to regulate the fuel economy of trailers. *Id.* at 1208.[559]

On March 15, 2024, NHTSA published the final rule titled ''Improvements for Heavy-Duty Engine and Vehicle Fuel Efficiency Test Procedures, and Other Technical Amendments.'' (89 FR 18808). In that final rule, NHTSA removed portions of its regulations that were vacated by that decision. While that final rule removed all the fuel efficiency standards for trailers and most of the mentions of those standards from its regulations, a residual mention of those standards remains in NHTSA's vehicle classification regulations at 49 CFR 523.10(a)(3). NHTSA is proposing to amend 49 CFR 523.10(a)(3) by deleting the sentence that mentions fuel efficiency standards for trailers.

2. Technical Amendment To Remove Heavy-Duty Trailers From the List of Heavy-Duty Vehicle Regulatory Categories

On June 24, 2024, NHTSA published the final rule titled ''Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond.'' (89 FR 52540, June 24, 2024). In Section VII.C.8.e of that final rule,[560] NHTSA finalized the removal of ''Heavy-duty trailers'' from the list of four heavy-duty vehicle regulatory categories in 49 CFR 523.6(a). However, NHTSA inadvertently excluded the necessary changes from the final rule's amendatory text. To align with its original intent as expressed in its 2024 final rule, NHTSA is proposing to amend 49 CFR 523.6(a) introductory text by stipulating that heavy-duty vehicles are divided into three regulatory categories and removing paragraph (a)(4)—which lists heavy-duty trailers as a heavy-duty vehicle regulatory category—from 49 CFR 523.6(a).

3. Technical Amendments To Remove Civil Penalties for Non-Compliance With Fuel Economy Standards From the CAFE Program

NHTSA is proposing to remove the mention of civil penalty payments for manufacturers that do not meet their fuel economy standards in the CAFE program from 49 CFR part 536. These amendments are to remove the mention of civil penalties from 49 CFR 536.5(d)(2) and (6), § 536.9(e), § 536.10(b); and to remove § 536.7(b) through (d).

4. Additional Technical Amendments

NHTSA is proposing to incorporate minor technical amendments to 49 CFR parts 523, 531, 533, 536, and 537. These amendments are to correct regulatory citations and incorporate minor spelling, grammatical, and formatting edits. Specifically, NHTSA is proposing to incorporate the following technical amendments.

a. Technical Amendments to Part 523

NHTSA is proposing to add and remove text, correct spelling errors, and incorporate other grammatical edits to clarify several definitions, including *Cargo-carrying volume, Electric vehicle, Transmission configuration,* and *Vocational vehicle (or heavy-duty vocational vehicle)* in § 523.2 and § 523.3 and to correct a regulatory citation in § 523.4.

b. Technical Amendments to Part 531

NHTSA is proposing to correct regulatory citations in § 531.5(b), (c), and (e) and Table 14 to § 531.5(e)(10); to correct capitalization errors in § 531.5(a) through (c) and Table 16 to § 531.5(e)(12); to correct spelling errors in Table 8 to § 531.5(e)(4), Table 11 to § 531.5(e)(7), Table 12 to § 531.5(e)(8), Table 13 to § 531.5(e)(9), Table 14 to § 531.5(e)(10), Table 15 to § 531.5(e)(11), Table 16 to § 531.5(e)(12), Table 21 to § 531.5(e)(17), Table 22 to § 531.5(e)(18), Table 23 to § 531.5(e)(19), and Table 24 to § 531.5(e)(20); to add clarifying text to § 531.5(c); to incorporate other grammatical edits in Table 8 to § 531.5(e)(4), Table 16 to § 531.5(e)(12), Table 19 to § 531.5(e)(15), Table 20 to § 531.5(e)(16), Table 21 to § 531.5(e)(17), Table 22 to § 531.5(e)(18), Table 23 to § 531.5(e)(19), and Table 24 to § 531.5(e)(20); and to incorporate grammatical edits in § 531.6(b)(4)(ii)(C).

c. Technical Amendments to Part 533

NHTSA is proposing to correct formatting errors in the text supporting Figure 1 to § 533.5; to correct capitalization errors in § 533.5(j); and to incorporate a grammatical edit in § 533.6(c)(5)(ii)(C).

d. Technical Amendments to Part 536

NHTSA is proposing to change the title of a section in Part 536 Introductory Text; to remove text and to correct terminology to clarify a provision in § 536.1; to remove text to clarify a provision in § 536.2; to add text to

[558] *Truck Trailer Mfrs. Ass'n, Inc.* v. *EPA*, 17 F.4th 1198, 1200 (D.C. Cir. 2021).

[559] For similar reasons, the court also held that the statute authorizing EPA to regulate the emissions of ''motor vehicles'' does not encompass trailers. *Id.* at 1200–03. The court affirmed, however, that both agencies still ''can regulate *tractors* based on the trailers they pull.'' *Id.* at 1208 (emphasis original). Moreover, NHTSA is still authorized to regulate trailers in other contexts, such as under 49 U.S.C. chapter 301. *See* 49 U.S.C. 30102(a)(7) (defining ''motor vehicle'' to include ''a vehicle . . . drawn by mechanical power''); *Truck Trailer Mfrs. Ass'n, Inc.,* 17 F.4th at 1207 (''A trailer is 'drawn by mechanical power.' '').

[560] 89 FR 52540, 52933 (June 24, 2024).

clarify the definition of *Credit holder (or holder)* in § 536.3(b)(6); to remove text to clarify the definition of *Light truck* in § 536.3(b)(10); to add and remove text to clarify the definition of *Trade* in § 536.3(b)(11); add and remove text to clarify the definition of *Transfer* in § 536.3(b)(12); to correct a capitalization error in § 536.4(c); to add and remove text to clarify provisions in § 536.4(a) through (c) and Figure 1 to § 536.4(c); to correct a table heading in Table 1 to § 536.4(c); to rename the title of § 536.6; to add a new paragraph (a) to § 536.6; to change the existing paragraph (a) to paragraph (a)(1) in § 536.6; to change the existing paragraph (b) to paragraph (a)(2) in § 536.6; to add a new paragraph (b) to § 536.6; to change the existing paragraph (c) to paragraph (b)(1); to add a new paragraph (2) to § 536.6(b); to add a new paragraph (3) to § 536.6(b); and to add text to the title of § 536.8; correct a spelling error in § 536.8(a) and (f).

e. Technical Amendments to Part 537

NHTSA is proposing to correct a spelling error in § 537.4(b)(3) and a regulatory citation in § 537.7(c)(7)(i).

VII. Public Participation

NHTSA requests comments on all aspects of this NPRM. This section describes how you can participate in this process.

How do I prepare and submit comments?

Your comments must be written and in English.[561] To ensure that your comments are correctly filed in the docket, please include the docket number NHTSA–2025–0491 at the top of your comments. Your comments must not be more than 15 pages long.[562] NHTSA established this limit to encourage you to write your primary comments in a concise fashion. However, you may attach necessary additional documents to your comments, and there is no limit on the length of the attachments. If you are submitting comments electronically as a PDF (Adobe) file, NHTSA asks that the documents be scanned using the Optical Character Recognition (OCR) process, thus allowing NHTSA to search and copy certain portions of your submissions.[563] Please note that pursuant to the Data Quality Act, for substantive data to be relied upon and used by NHTSA, it must meet the information quality standards set forth in the OMB and DOT Data Quality Act guidelines. Accordingly, NHTSA encourages you to consult the guidelines in preparing your comments. OMB's guidelines may be accessed at *https://www.gpo.gov/fdsys/pkg/FR-2002-02-22/pdf/R2-59.pdf.* DOT's guidelines may be accessed at *https://www.transportation.gov/dot-information-dissemination-quality-guidelines.*

Tips for Preparing Your Comments

When submitting comments, please remember to:

- Identify the rulemaking by docket number and other identifying information (subject heading, Regulation Identifier Number (RIN), **Federal Register** date, and page number).
- Explain why you agree or disagree, suggest alternatives, and substitute language for your requested changes.
- Describe any assumptions and provide any technical information either or data that you used.
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- Provide specific examples to illustrate your concerns and suggest alternatives.
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- Make sure to submit your comments by the comment period deadline identified in the **DATES** section above.

How can I be sure that my comments were received?

If you submit your comments to NHTSA's docket by mail and wish DOT Docket Management to notify you upon receipt of your comments, please enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will return the postcard by mail.

How do I submit Confidential Business Information (CBI)?

If you wish to submit any information under a claim of confidentiality, you should submit your complete submission, including the information you claim to be CBI, to NHTSA's Office of the Chief Counsel. When you send a comment containing CBI, you should include a cover letter setting forth the information specified in our CBI regulation.[564] In addition, you should submit a copy from which you have deleted the claimed CBI to the docket by one of the methods set forth above.

NHTSA is currently treating electronic submission as an acceptable method for submitting CBI to NHTSA under 49 CFR part 512. Any CBI submissions sent via email should be sent to an attorney in the Office of the Chief Counsel at the address given above under **FOR FURTHER INFORMATION CONTACT**. Likewise, for CBI submissions via a secure file transfer application, an attorney in the Office of the Chief Counsel must be set to receive a notification when files are submitted and have access to retrieve the submitted files. At this time, regulated entities should not send a duplicate hardcopy of their electronic CBI submissions to DOT headquarters. If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

Will NHTSA consider late comments?

NHTSA will consider all comments received before the close of business on the comment closing date indicated above under **DATES**. To the extent practicable, NHTSA will also consider comments received after that date. If interested persons believe that any information that NHTSA places in the docket after the issuance of the NPRM affects their comments, they may submit comments after the closing date concerning how NHTSA should consider that information for the proposed rule. However, NHTSA's ability to consider any such late comments in this rulemaking will be limited.

If a comment is received too late for NHTSA to practicably consider in developing a proposed rule, NHTSA will consider that comment as an informal suggestion for future rulemaking action.

How can I read the comments submitted by other people?

You may read the materials placed in the dockets for this document (*e.g.,* the comments submitted in response to this document by other interested persons) at any time by going to *https://www.regulations.gov.* Follow the online instructions for accessing the dockets. You may also read the materials at the DOT Docket Management Facility by going to the street address given above under **ADDRESSES**.

How do I participate in the public hearings?

NHTSA will hold one virtual public hearing during the public comment period. NHTSA will announce the

[561] 49 CFR 553.21.

[562] *Id.*

[563] OCR is the process of converting an image of text, such as a scanned paper document or electronic fax file, into computer-editable text.

[564] *See* 49 CFR part 512.

specific date and web address for the hearing in a supplemental **Federal Register** notification. NHTSA will accept oral and written comments to the rulemaking documents and will also accept comments to the Draft EIS at this hearing. The hearing will start at 9 a.m. Eastern time and will continue until everyone has had a chance to speak.

NHTSA will conduct the hearing informally, and technical rules of evidence will not apply. NHTSA will arrange for a written transcript of the hearing to be posted in the dockets as soon as it is available and keep the official record of the hearing open for 30 days following the hearing to allow you to submit supplementary information.

How do I comment on the Draft Environmental Impact Statement?

The Draft EIS associated with this proposal has a unique public docket number and is available at Docket No. NHTSA–2025–0491. Comments on the Draft EIS can be submitted electronically at *https://www.regulations.gov,* at this docket number. You may also mail or hand-deliver comments to Docket Management, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Room W12–140, Washington, DC 20590 (referencing Docket No. NHTSA–2025–0491), between 9 a.m. and 5 p.m., Monday through Friday, except on Federal holidays. To be sure that someone is there to help you, please call (202) 366–9322 before coming. All comments and materials received, including the names and addresses of the commenters who submit them, will become part of the administrative record and will be posted on the internet without change at *https://www.regulations.gov.*

VIII. Regulatory Notices and Analyses

A. Executive Order 12866, ''Regulatory Planning and Review''; Executive Order 13563, ''Improving Regulation and Regulatory Review''; Executive Order 14192, ''Unleashing Prosperity Through Deregulation''; and Executive Order 14219, ''Ensuring Lawful Governance and Implementing the President's 'Department of Government Efficiency' Deregulatory Initiative''

E.O. 12866, ''Regulatory Planning and Review'' (58 FR 51735, Oct. 4, 1993), reaffirmed by E.O. 13563, ''Improving Regulation and Regulatory Review'' (76 FR 3821, Jan. 21, 2011), provides for determining whether a regulatory action is ''significant'' and therefore subject to the Office of Management and Budget (OMB) review process and to the requirements of the Executive order. This action is a ''significant regulatory action'' under Section 3(f)(1) of E.O. 12866 because it is likely to have an annual effect on the economy of $100 million or more. Accordingly, NHTSA submitted this action to OMB for review and any changes made in response to interagency feedback submitted via the OMB review process have been documented in the docket for this action. The estimated benefits and costs of this proposed rule are described above and in the PRIA, located in the docket and on NHTSA's website.

E.O. 14192, ''Unleashing Prosperity Through Deregulation'' (90 FR 9065, Feb. 6, 2025) requires an agency, unless prohibited by law, to identify at least ten existing regulatory requirements to be repealed when the agency publicly proposes for notice and comment or otherwise promulgates a new significant regulatory rule. Section 3(c) of E.O. 14192 also requires that the total incremental costs associated with an agency's proposed new regulations must, to the extent permitted by law, be offset by the elimination of costs associated with other previous regulations of the agency. This proposed rule, if finalized as proposed, is expected to be an E.O. 14192 deregulatory action and thus is not expected to generate net new incremental costs. The estimated cost savings of this proposal are detailed in the PRIA.

E.O. 14219, ''Ensuring Lawful Governance and Implementing the President's 'Department of Government Efficiency' Deregulatory Initiative'' (90 FR 10583, Feb. 19, 2025) requires agency heads to review their regulations and identify regulations that, among other things, are based on anything other than the best reading of the underlying statutory authority or prohibition or that implicate matters of social, political, or economic significance that are not authorized by clear statutory authority. NHTSA has identified its CAFE standards issued in 2022 and 2024 as falling within an enumerated category of E.O. 14219. Specifically, as described in an interpretive rule published on June 11, 2025, NHTSA determined that the CAFE standards issued in 2022 and 2024 are not authorized by clear statutory authority. NHTSA is issuing this proposed rule to reset the CAFE standards and bring the CAFE program into compliance with relevant statutory requirements. NHTSA discusses compliance with relevant statutory requirements in Section V above.

B. Environmental Considerations

1. National Environmental Policy Act

To inform its development of the CAFE standards for MYs 2022–2031, and pursuant to the National Environmental Policy Act (NEPA), 42 U.S.C. 4321 *et seq.,* and DOT Order 5610.1D, 90 FR 29621 (July 3, 2025), NHTSA prepared a Draft SEIS to evaluate the potential environmental impacts of the proposed action and a reasonable range of alternatives. In revising the CAFE standards established in NHTSA's June 2024 final rule, NHTSA is making substantial changes to the proposed action examined in the 2024 Final EIS and, as such, prepared this Draft SEIS to inform its amendment of MYs 2027–2031 CAFE standards. Because the MY 2026 passenger car and light truck fleets will already be produced and for sale by the time NHTSA issues a final rule to amend MYs 2022–2031 CAFE standards, this Draft SEIS analyzes environmental impacts associated only with the proposed MYs 2027–2031 CAFE standards. The Draft SEIS analyzes reasonably foreseeable impacts of the proposed rule on the potentially affected environment, which are discussed in proportion to their significance. It also discusses NHTSA's reasonable range of alternatives, including a No-Action Alternative and a Preferred Alternative, and other factors used in developing this proposed rule. The Draft SEIS addresses mitigation measures considered as part of the environmental analysis.[565]

NHTSA has considered the information contained in the Draft SEIS as part of developing this proposed rule. As explained in NHTSA's June 2025 interpretive rule, NHTSA ''must not consider the fuel economy of dedicated automobiles; must consider dual-fueled automobiles to be operated only on gasoline or diesel fuel; and must not consider, when prescribing a fuel economy standard, the trading, transferring, or availability of credits under [49 U.S.C. 32903]''; [566] NEPA, however, does not impose such constraints on analysis; instead, NEPA requires that Federal agencies consider reasonably foreseeable environmental impacts of their proposed actions.[567]

[565] DOT Order 5610.1D, sec. 26.l (''Mitigation means measures that avoid, minimize, or compensate for environmental impacts caused by a proposed action or alternatives. . . . While NEPA requires consideration of mitigation, it does not mandate the form or adoption of any mitigation.'').

[566] Resetting the Corporate Average Fuel Economy Program; Interpretive Rule, 90 FR 24518, 24519 (June 11, 2025).

[567] 42 U.S.C. 4332(2); DOT Order 5610.1D, sec. 13.f.

NHTSA's Draft SEIS therefore presents results of an ''unconstrained'' analysis that considers manufacturers' potential use of CAFE credits and application of alternative fuel technologies (including PHEVs using their charge depleting fuel economy values, BEVs, and FCEVs) in order to disclose and allow consideration of real-world environmental consequences of the Proposed Action and alternatives.[568]

The Draft SEIS is available for public comment; instructions for the submission of comments are included within the document. Afterward, NHTSA will simultaneously issue the Final SEIS and Record of Decision (ROD), pursuant to Section 14 of DOT Order 5610.D, unless NHTSA determines the statutory criteria or practicability considerations preclude simultaneous issuance. For additional information on NHTSA's NEPA analysis, please see the Draft SEIS.

2. Clean Air Act as Applied to NHTSA's Proposed Rule

CAA (42 U.S.C. 7401 *et seq.*) is the primary Federal legislation that addresses air quality. Under the authority of the CAA and subsequent amendments, EPA has established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants, which are reviewed every 5 years.

The air quality of a geographic region is usually assessed by comparing the levels of criteria air pollutants found in the ambient air to the levels established by the NAAQS (also considering the other elements of a NAAQS: averaging time, form, and indicator). Concentrations of criteria pollutants within the air mass of a region are measured in parts of a pollutant per million parts (ppm) of air or in micrograms of a pollutant per cubic meter ($\mu g/m^3$) of air present in repeated air samples taken at designated monitoring locations using specified types of monitors. These ambient concentrations of each criteria pollutant are compared to the levels, averaging time, and form specified by the NAAQS to assess whether the region's air quality is in attainment with the NAAQS.

When the measured concentrations of a criteria pollutant within a geographic region are below those permitted by the NAAQS, EPA designates the region as an attainment area for that pollutant, while regions where concentrations of criteria pollutants exceed Federal standards are called nonattainment areas. Former nonattainment areas that are now in compliance with the NAAQS are designated as maintenance areas. Each state with a nonattainment area is required to develop and implement a State Implementation Plan (SIP) documenting how the region will reach attainment levels within the time periods specified in the CAA. For maintenance areas, the SIP must document how the state intends to maintain compliance with the NAAQS. EPA develops a Federal Implementation Plan (FIP) if a state fails to submit an approvable plan for attaining and maintaining the NAAQS. When EPA revises a NAAQS, each state must revise its SIP to address how it plans to attain the new standard.

No Federal agency may ''engage in, support in any way or provide financial assistance for, license or permit, or approve'' any activity that does not ''conform'' to a SIP or FIP after EPA has approved or promulgated it.[569] Further, no Federal agency may ''approve, accept or fund'' any transportation plan, program, or project developed pursuant to title 23 or chapter 53 of title 49, U.S.C., unless the plan, program, or project has been found to ''conform'' to any applicable implementation plan in effect.[570] The purpose of these conformity requirements is to ensure that federally sponsored or conducted activities do not interfere with meeting the emissions targets in SIPs or FIPs, do not cause or contribute to new violations of the NAAQS, and do not impede the ability of a state to attain or maintain the NAAQS or delay any interim milestones. EPA has issued two sets of regulations to implement the conformity requirements:

(1) The Transportation Conformity Rule[571] applies to transportation plans, programs, and projects that are developed, funded, or approved under 23 U.S.C. (Highways) or 49 U.S.C. chapter 53 (Public Transportation).

(2) The General Conformity Rule[572] applies to all other Federal actions not covered under the Transportation Conformity Rule. The General Conformity Rule establishes emissions thresholds, or de minimis levels, for use in evaluating the conformity of an action that results in emissions increases.[573] If the net increases of direct and indirect emissions exceed any of these thresholds, and the action is not otherwise exempt, then a conformity determination is required. The conformity determination can entail air quality modeling studies, consultation with EPA and state air quality agencies, and commitments to revise the SIP or to implement measures to mitigate air quality impacts.

The proposed CAFE standards and associated program activities are not developed, funded, or approved under 23 U.S.C. or 49 U.S.C. chapter 53. Accordingly, this proposed action and associated program activities would not be subject to transportation conformity. Under the General Conformity Rule, a conformity determination is required where a Federal action would result in total direct and indirect emissions of a criteria pollutant or precursor in a nonattainment or maintenance areas equaling or exceeding the rates specified in 40 CFR 93.153(b)(1) and (2). As explained below, NHTSA's proposed action would not result in direct or indirect emissions as defined in 40 CFR 93.152.

The General Conformity Rule defines direct emissions as ''those emissions of a criteria pollutant or its precursors that are caused or initiated by the Federal action and originate in a nonattainment or maintenance area and occur at the same time and place as the action and are reasonably foreseeable.'' [574] NHTSA's proposed action would set fuel economy standards for passenger cars and light trucks. It therefore would not cause or initiate direct emissions consistent with the meaning of the General Conformity Rule.[575]

Indirect emissions under the General Conformity Rule are ''those emissions of a criteria pollutant or its precursors: (1) [t]hat are caused or initiated by the Federal action and originate in the same nonattainment or maintenance area but occur at a different time or place as the action; (2) [t]hat are reasonably foreseeable; (3) [t]hat the agency can practically control; and (4) [f]or which the agency has continuing program responsibility.'' [576] Each element of the definition must be met to qualify as indirect emissions. NHTSA has determined, for purposes of general conformity, that emissions (if any) that may result from its fuel economy standards would not be caused by the agency's action, but rather would occur

[568] See Appendix C of the Draft SEIS for a discussion of the full range of modeled electrified technologies.

[569] 42 U.S.C. 7506(c)(1).

[570] 42 U.S.C. 7506(c)(2).

[571] 40 CFR part 51, subpart T, and part 93, subpart A.

[572] 40 CFR part 51, subpart W, and part 93, subpart B.

[573] 40 CFR 93.153(b).

[574] 40 CFR 93.152.

[575] *Dep't of Transp.* v. *Pub. Citizen,* 541 U.S. 752, 772 (2004) (''[T]he emissions from the Mexican trucks are not 'direct' because they will not occur at the same time or at the same place as the promulgation of the regulations.''). NHTSA's proposed action would establish fuel economy standards for MYs 2022–2031 passenger cars and light trucks; any emissions increases would occur in a different place and well after promulgation of the proposed rule.

[576] 40 CFR 93.152.

because of subsequent activities the agency cannot practically control. ''[E]ven if a Federal licensing, rulemaking or other approving action is a required initial step for a subsequent activity that causes emissions, such initial steps do not mean that a Federal agency can practically control any resulting emissions.'' [577]

EPCA requires NHTSA to set fleetwide average fuel economy standards for the CAFE program using performance-based standards. NHTSA is not authorized to dictate how manufacturers are to comply with the standards, nor may NHTSA require manufacturers to use specific technologies to achieve improved fuel economy in their fleets. Furthermore, NHTSA cannot control consumer purchasing or driving behavior, both of which can have a considerable effect on vehicle emissions of criteria pollutants. It is the combination of factors outside NHTSA's control, such as manufacturers' decisions to apply fuel economy technologies and consumers' purchasing and driving behaviors, which determine the aggregate levels of criteria pollutant and precursor emissions. For purposes of analyzing the environmental impacts of the alternatives considered under NEPA, NHTSA has necessarily made assumptions regarding all of these factors.

In addition, NHTSA does not have the statutory authority or practical ability to control the actual vehicle miles traveled (VMT) by drivers. As the extent of emissions is directly dependent on the operation of motor vehicles, changes in any emissions that would result from NHTSA's proposed CAFE standards are not changes NHTSA can practically control or for which NHTSA has continuing program responsibility. Therefore, the proposed CAFE standards and alternative standards considered by NHTSA would not cause indirect emissions under the General Conformity Rule, and a general conformity determination is not required.

3. Endangered Species Act (ESA)

Under Section 7(a)(2) of the ESA, Federal agencies must ensure that actions they authorize, fund, or carry out are ''not likely to jeopardize the continued existence'' of any federally listed threatened or endangered species (collectively, ''listed species'') or result in the destruction or adverse modification of the designated critical habitat of these species.[578] If a Federal agency determines that an agency action may affect a listed species or designated critical habitat, it must initiate consultation with the appropriate service—the U.S. Fish and Wildlife Service (FWS) of the Department of the Interior (DOI) or the National Oceanic and Atmospheric Administration's National Marine Fisheries Service of the Department of Commerce (together, ''the Services''), or both, depending on the species involved—in order to ensure that the action is not likely to jeopardize the species or destroy or adversely modify designated critical habitat.[579] Under this standard, the Federal agency taking action evaluates the possible effects of its action and determines whether to initiate consultation.[580]

The Services have previously provided legal and technical guidance about whether CO_2 emissions associated with a specific proposed Federal action trigger ESA Section 7(a)(2) consultation. NHTSA analyzed the Services' history of actions, analysis, and guidance in Appendix G of the MYs 2012–2016 CAFE standards EIS and now incorporates by reference that appendix here.[581] In that appendix, NHTSA looked at the history of the Polar Bear Special Rule and several guidance memoranda provided by FWS and the U.S. Geological Survey. Ultimately, DOI concluded that a causal link could not be made between CO_2 emissions associated with a proposed Federal action and specific effects on listed species; therefore, no Section 7(a)(2) consultation would be required.

Subsequent to the publication of that appendix, a court vacated the Polar Bear Special Rule on NEPA grounds, though it upheld the ESA analysis as having a rational basis.[582] FWS then issued a revised Final Special Rule for the Polar Bear.[583] In that final rule, FWS provided for ESA Section 7, that the determination of whether consultation is triggered is narrow and focused on the discrete effect of the proposed agency action. FWS wrote, ''[T]he consultation requirement is triggered only if there is a causal connection between the proposed action and a discernible effect to the species or critical habitat that is reasonably certain to occur. One must be able to 'connect the dots' between an effect of proposed action and an impact to the species and there must be a reasonable certainty that the effect will occur.'' [584] The statement in the revised Final Special Rule is consistent with the prior guidance published by FWS and remains valid today.[585] If the consequence is not reasonably certain to occur, it is not an ''effect of a proposed action'' and does not trigger the consultation requirement.

Pursuant to Section 7(a)(2) of the ESA, NHTSA considered the effects of the proposed CAFE standards and reviewed applicable ESA regulations, case law, and guidance to determine what, if any, impact there might be to listed species or designated critical habitat. Based on this assessment, the agency has determined that the action of setting CAFE standards does not require consultation under Section 7(a)(2) of the ESA and has concluded the agency's review of this action under Section 7 of the ESA.

4. Other Regulatory Analyses Discussed in the Draft SEIS

NHTSA conducted brief qualitative reviews of the impacts of action alternatives on potentially affected resources, including those related to the statutory requirements and orders listed below, in the Draft SEIS, and determined that setting CAFE standards for passenger cars and light trucks is not the type of activity to have impacts on such resource categories:

- National Historic Preservation Act (NHPA);
- Fish and Wildlife Conservation Act (FWCA);
- Coastal Zone Management Act (CZMA);
- Floodplain Management (E.O. 11988 and DOT Order 5650.2);
- Preservation of the Nation's Wetlands (E.O. 11990 and DOT Order 5660.1a);
- Migratory Bird Treaty Act (MBTA), Bald and Golden Eagle Protection Act (BGEPA), E.O. 13186; and
- Department of Transportation Act (Section 4(f)).

[577] 40 CFR 93.152.

[578] 16 U.S.C. 1536(a)(2).

[579] *See* 50 CFR 402.14.

[580] *See* 50 CFR 402.14(a) (''Each Federal agency shall review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat.'').

[581] Available on NHTSA's Corporate Average Fuel Economy website at: NHTSA, Appendix G: Endangered Species Act Consideration, available at: *https://static.nhtsa.gov/nhtsa/downloads/CAFE/2012-2016%20Docs-PCLT/2012-2016%20Final%20Environmental%20Impact%20Statement/Appendix_G_Endangered_Species_Act_Consideration.pdf* (accessed: Sept. 10, 2025).

[582] In re: Polar Bear Endangered Species Act Listing and § 4(D) Rule Litigation, 818 F.Supp.2d 214 (D.D.C. Oct. 17, 2011).

[583] 78 FR 11766 (Feb. 20, 2013).

[584] 78 FR 11784–11785 (Feb. 20, 2013).

[585] See DOI, Guidance on the Applicability of the Endangered Species Act Consultation Requirements to Proposed Actions Involving the Emissions of Greenhouse Gases, Solicitor's Opinion No. M–37017, DOI: Washington, DC (2008), available at: *https://www.doi.gov/sites/doi.opengov.ibmcloud.com/files/uploads/M-37017.pdf* (accessed: Sept. 10, 2025).

5. Executive Order 13045: ''Protection of Children From Environmental Health Risks and Safety Risks''

This action is subject to E.O. 13045 (62 FR 19885, Apr. 23, 1997). Pursuant to E.O. 13045, NHTSA must prepare an evaluation of the environmental health or safety effects of the planned action on children and an explanation of why the planned action is preferable to other potentially effective and reasonably feasible alternatives considered by NHTSA. Further, this analysis may be included as part of any other required analysis.

While environmental and health effects associated with criteria pollutant and toxic air pollutant emissions vary over time and across alternatives, negative effects, when estimated, are extremely small. This preamble and the Draft SEIS discuss air quality, climate, and their related environmental and health effects. In addition, Section V of this preamble explains why NHTSA believes the proposed CAFE standards are preferable to other alternatives considered. Together, this preamble and Draft SEIS satisfy NHTSA's responsibilities under E.O. 13045.

6. Executive Order 14154: ''Unleashing American Energy''

E.O. 14154, ''Unleashing American Energy'' (90 FR 8353, Jan. 29, 2025), announced the administration's policy regarding energy resources, specifically to promote the production, distribution, and use of reliable domestic energy supplies, including oil, natural gas, and biofuels; to ensure that all regulatory requirements related to energy are ''grounded in clearly applicable law''; and ''to eliminate the 'electric vehicle (EV) mandate' and promote true consumer choice'' [586] by ''removing regulatory barriers to motor vehicle access; by ensuring a level regulatory playing field for consumer choice in vehicles; by terminating, where appropriate, state emissions waivers that function to limit sales of gasoline-powered automobiles; and by considering the elimination of unfair subsidies and other ill-conceived government-imposed market distortions that favor EVs over other technologies and effectively mandate their purchase by individuals, private businesses, and government entities alike by rendering other types of vehicles unaffordable.'' [587] E.O. 14154 also directs agencies to adhere only to relevant legislated requirements for environmental considerations and to eliminate any considerations beyond these requirements. Further, the Executive order specifically directed the Council on Environmental Quality to propose rescinding its NEPA regulations found at 40 CFR 1500. CEQ rescinded its NEPA regulations in an interim final rule published on February 25, 2025. That rule went into effect on April 11, 2025.[588]

This proposed rule follows the direction of E.O. 14154 to ensure that all analysis related to energy is grounded in clearly applicable law and that only the relevant legislated requirements for environmental considerations and any considerations beyond these requirements are eliminated from the assessment of maximum feasible standards and the Draft SEIS.

7. Executive Order 14173: ''Ending Illegal Discrimination and Restoring Merit-Based Opportunity''

E.O. 14173, ''Ending Illegal Discrimination and Restoring Merit-Based Opportunity'' (90 FR 8633, Jan. 31, 2025), removed ''diversity, equity, and inclusion'' (DEI) and ''diversity, equity, inclusion, and accessibility'' (DEIA) principles from mandates, policies, programs, activities, guidance, regulations, and requirements. This Executive order revoked E.O. 12898, ''Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations'' (59 FR 7629, Feb. 11, 1994), which directed Federal agencies to identify and address, as appropriate, ''disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.'' [589] The proposed rule is in compliance with E.O. 14173, and the Draft SEIS analyzes the impacts on the quality of life of all Americans potentially affected by the proposed action.

[586] E.O. 14154, sec. 2, Unleashing American Energy, 90 FR 8353 (Jan. 29, 2025).

[587] E.O. 14154, sec. 2(e).

[588] See Removal of National Environmental Policy Act Implementing Regulations, Docket No. CEQ–2025–0002.

[589] E.O. 12898, sec. 1–101.

C. Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended), whenever an agency is required to publish an NPRM, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (*e.g.,* small businesses, small organizations, and small governmental jurisdictions). No regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities and publishes with the proposed rule a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

NHTSA has considered the impacts of this proposed rule under the Regulatory Flexibility Act, and the NHTSA Administrator certifies this proposed rule will not have a significant economic impact on a substantial number of small entities. NHTSA's statement providing the factual basis for this certification pursuant to 5 U.S.C. 605(b) follows.

Small businesses are defined based on the North American Industry Classification System (NAICS) code.[590] One of the criteria for determining size is the number of employees in the firm. For establishments primarily engaged in manufacturing or assembling automobiles, the firm must have less than 1,500 employees to be classified as a small business. This rulemaking would affect motor vehicle manufacturers. As shown in Table VIII–1, NHTSA has identified twelve small manufacturers that produce passenger cars, light trucks, and SUVs. NHTSA acknowledges that some very new manufacturers may potentially not be listed. However, those new manufacturers tend to have transportation products that are not part of the light-duty vehicle fleet and have yet to start production of relevant vehicles.[591]

[590] Classified in NAICS under Subsector 336—Transportation Equipment Manufacturing for Automobile and Light Duty Motor Vehicle Manufacturing (336110), available at: *https://www.sba.gov/document/support-table-size-standards* (accessed: Sept. 10, 2025).

[591] 5 U.S.C. 605(b).

Table VIII-1: Small Domestic Manufacturers

Manufacturers	Founded	Employees[592]	Estimated Annual Production[593]
BXR Motors	2007	< 25	< 100
Equus Automotive	2008	< 25	< 100
Falcon Motorsports	2009	< 25	< 100
Faraday Future	2014	249	<100
Lucra Cars	2005	< 25	< 100
Lyons Motor Car	2012	< 25	< 100
Panoz	1988	< 50	< 100
RAESR	2013	< 25	< 100
Rezvani Motors	2014	< 25	< 100
Rossion Automotive	2007	< 50	< 100
Saleen Automotive, Inc.	1984	113	< 100
SSC Automotive	1999	< 25	< 100

NHTSA believes that the proposed rule would not have a significant economic impact on small vehicle manufacturers. The proposal is intended to reset the CAFE standards consistent with NHTSA's statutory authority. In addition, under 49 CFR part 525, passenger car manufacturers building less than 10,000 vehicles per year can petition NHTSA to have alternative standards apply to them. The listed manufacturers producing gasoline- and diesel-powered vehicles do not currently meet the standard and must already petition NHTSA for relief. This proposal to amend standards is not expected to have a meaningful impact on these manufacturers—they are still expected to be required to go through the same process and petition for relief, as the amended standards are expected to exceed the maximum feasibility of these small manufacturers. Accordingly, a regulatory flexibility analysis was not prepared.

D. Executive Order 13132 (''Federalism'')

E.O. 13132, ''Federalism'' (64 FR 43255, Aug. 10, 1999), requires Federal agencies to develop an accountable process to ensure ''meaningful and timely input by state and local officials in the development of regulatory policies that have federalism implications.'' The Executive order defines the term ''[p]olicies that have federalism implications'' to include regulations that have ''substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.'' Under the Executive order, agencies may not issue a regulation that has federalism implications, which imposes substantial direct compliance costs, unless the Federal Government provides the funds necessary to pay the direct compliance costs incurred by the state and local governments, or the agencies consult with state and local officials early in the process of developing the proposed rule.

NHTSA has determined that this proposed rule does not implicate E.O. 13132, because it neither imposes substantial direct compliance costs on state, local, or tribal governments, nor does it preempt state law. Thus, this proposed rule does not implicate the consultation procedures that E.O. 13132 imposes on agency regulations that would either preempt state law or impose substantial direct compliance costs on state, local, or tribal governments, because the only entities subject to this proposed rule are vehicle manufacturers.

NHTSA is not taking any action regarding preemption in this proposed rule, as this rule's purpose is to propose amended CAFE standards. Nothing in EPCA or EISA provides that NHTSA must make a determination or pronouncement on preemption.

E. Executive Order 12988 (''Civil Justice Reform'')

With respect to the review of the promulgation of a new regulation, Section 3(b) of E.O. 12988, ''Civil Justice Reform'' (61 FR 4729, Feb. 7, 1996), requires that executive agencies make every reasonable effort to ensure that the regulation: (1) clearly specifies the preemptive effect; (2) clearly specifies the effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct, while promoting simplification and burden reduction; (4) clearly specifies the retroactive effect, if any; (5) specifies whether administrative proceedings are to be required before parties file suit in court; (6) adequately defines key terms; and (7) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. This document is consistent with these requirements.

NHTSA has examined this proposed rule to reset the CAFE standards applicable to MYs 2022–2026 and MYs 2027–2031 and determined that it meets the requirements of the Executive order. In particular, the issue of preemption is discussed above and the agency's assessment of the rule's effect on prior model years is discussed in Section V. NHTSA notes further that there is no requirement that individuals submit a petition for reconsideration or pursue

[592] Estimated number of employees as of Jan. 2025, source: *linkedin.com, zoominfo.com, rocketreach.co,* and *datanyze.com.*

[593] Rough estimate of LDV production for MY 2024.

other administrative proceedings before they file suit in court. In addition, the rule provides a clear legal standard for compliance, establishing CAFE standards for passenger cars and light trucks for MYs 2022–2026 and MYs 2027–2031.

F. Executive Order 13175 (''Consultation and Coordination With Indian Tribal Governments'')

This proposed rule does not have tribal implications, as specified in E.O. 13175, ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, Nov. 9, 2000). This proposed rule would be implemented at the Federal level and would directly impact only vehicle manufacturers. Thus, E.O. 13175, which requires consultation with tribal officials when agencies are developing policies that have ''substantial direct effects'' on tribes and tribal interests, does not apply to this proposed rule.

G. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (UMRA) requires Federal agencies to prepare a written assessment of the costs, benefits, and other effects of a proposed or final rule that includes a Federal mandate likely to result in the expenditure by state, local, or tribal governments, in the aggregate, or by the private sector, of more than $100 million in any 1 year (adjusted for inflation with base year of 1995). Adjusting this amount by the implicit GDP price deflator for 2024 results with $187 million (125.23/66.939 = 1.87).[594] Before promulgating a rule for which a written statement is needed, Section 205 of UMRA generally requires NHTSA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost effective, or least burdensome alternative that achieves the objective of the rule. The provisions of Section 205 do not apply when they are inconsistent with applicable law. Moreover, Section 205 allows NHTSA to adopt an alternative other than the least costly, most cost effective, or least burdensome alternative if NHTSA publishes with the rule an explanation of why that alternative was not adopted.

This proposed rule will not result in the expenditure by state, local, or tribal governments, in the aggregate, of more than $187 million annually, but it will result in cost savings exceeding that amount for vehicle manufacturers and their suppliers. In developing this proposed rule, NHTSA considered a range of alternative fuel economy standards. As explained in detail in Section V of the preamble above, NHTSA concludes its selected alternatives are the maximum feasible alternatives that achieve the objectives of this proposed rule, as required by EPCA/EISA.

H. Regulation Identifier Number

DOT assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in the spring and fall of each year. The RIN contained in the heading at the beginning of this document may be used to find this action in the Unified Agenda.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act (NTTAA) requires NHTSA to evaluate and use existing voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law (*i.e.,* the statutory provisions regarding NHTSA's vehicle safety authority) or otherwise impractical.[595]

Voluntary consensus standards are technical standards developed or adopted by voluntary consensus standards bodies. Technical standards are defined by the NTTAA as ''performance-based or design-specific technical specification and related management systems practices.'' They pertain to ''products and processes, such as the size, strength, or technical performance of a product, process, or material.'' [596]

Examples of organizations generally regarded as voluntary consensus standards bodies include the American Society for Testing and Materials, International, the SAE, and the American National Standards Institute (ANSI). If NHTSA does not use available and potentially applicable voluntary consensus standards, it is required by the act to provide Congress, through OMB, an explanation of reasons for not using such standards. There are currently no consensus standards that NHTSA administers relevant to these proposed CAFE standards.

J. Department of Energy Review

In accordance with 49 U.S.C. 32902(j)(2), NHTSA submitted this proposed rule to DOE for review. That agency did not make any comments that NHTSA did not address.[597]

K. Paperwork Reduction Act

Under the procedures established by the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501 *et seq.*), Federal agencies must obtain approval from the OMB for each collection of information they conduct, sponsor, or require through regulations. A person is not required to respond to a collection of information by a Federal agency unless the collection displays a valid OMB control number. The Information Collection Request (ICR) for a modification to NHTSA's existing information collection for CAFE Reporting described below is being forwarded to OMB for review and comment. In compliance with these requirements, NHTSA asks for public comments on the following proposed collection of information for which the agency is seeking approval from OMB.

Title: Corporate Average Fuel Economy Reporting.

OMB Control Number: 2127–0019.

Form Number: NHTSA Form 1474 (CAFE Projections Reporting Template).

Type of Request: Modification of a currently approved collection.

Type of Review Requested: Regular.

Requested Expiration Date of Approval: Three years from date of approval.

Summary of the Collection of Information: NHTSA is submitting to OMB, in connection with this NPRM, an information collection request (ICR) for NHTSA's information collections for the CAFE program. The ICR covers 11 information collections: two required projection reports (pre-model year and mid-model year reports), eight additional compliance submissions that are required to be submitted under certain circumstances, and one information collection for a petition process that is required to receive a benefit. NHTSA is requesting approval for the modification of the ICR to cover proposed changes in this NPRM, including both additions and removals to required reporting. Specifically, the modifications include: (1) amending reporting elements related to vehicle classification on the pre-model year and mid-model year reports; (2) removing data elements related to AC and OC fuel consumption incentive values (FCIVs), in line with the AC and OC FCIV

[594] Bureau of Economic Analysis (BEA), National Income and Product Accounts, NIPA Table 1.1.9: Implicit Price Deflators for Gross Domestic Product (2025), available at: *https://apps.bea.gov/iTable/?reqid=19&step=2&isuri=1&categories=survey* (accessed: Sept. 10, 2025).

[595] 15 U.S.C. 272.

[596] 142 Cong. Rec. S1081 (Feb. 7, 1996) (statement of Sen. Rockefeller).

[597] DOE's letter of review for the notice of the proposed rule.

program ending in MY 2027; (3) removing reporting requirements for credit trading in line with NHTSA's proposal to end credit trading in MY 2027, which includes credit trade contracts, credit allocation plans, credit transaction requests, and credit value reports; and (4) updating the pre-model year and mid-model year reporting templates to align with revised requirements. In addition, NHTSA is removing information collection requirements that were already ending in the regulation for reporting requirements related to AC and OC FCIV petitions, which are set to end in MY 2026 and reporting requirements related to hybrid/electric full-size pickup truck FCIVs, which end in MY 2024.

The following table provides a summary of each of the information collections in the ICR.

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Table VIII-2: CAFE Information Collections

Report or Submission Title	Regulatory Requirement	Description of Reported Information
Pre-model Year Reports	§ 537.5, § 537.7(b), § 537.7(c)(1) and (2), § 537.7(c)(3) and (4), § 537.7(c)(5), § 537.7(c)(7)	1. General reporting information for identifying the manufacturer.
		2. Projected required fuel economy.
		3. Combined fuel economy and projected sales information.
		4. Vehicle configuration design and attribute data (e.g., transmission and engine information).
		5. Non-passenger automobile (light truck) attribute data (e.g., 4WD and ground clearance measurements).
		6. Any improved AC, OC and full-size pickup truck technologies used each model year to calculate the average fuel economy specified in 40 CFR 600.510-12(c).
		7. Additional reporting fields for AC/OC and other clarifying data fields have been added to the template since last review.
Mid-model Year Reports	§ 537.5, § 537.7(b), § 537.7(c)(1) and (2)	1. General reporting information for identifying the manufacturer.
		2. Projected required fuel economy.
		3. Combined fuel economy and projected sales information.
		4. Vehicle configuration design and attribute data (e.g., transmission and engine information).
		5. Non-passenger automobile (light truck) attribute data (e.g., 4WD and ground clearance measurements).
		6. Any improved AC, OC and full-size pickup truck technologies used each model year to calculate the average fuel economy specified in 40 CFR 600.510-12(c).
		7. Additional reporting fields for AC/OC and other clarifying data fields have been added to the template since last review.
Supplementary Reports	§ 537.5, § 537.8	1. General reporting information for identifying the manufacturer.
		2. Projected required fuel economy.
		3. Combined fuel economy and projected sales information.
		4. Vehicle configuration design and attribute data (e.g., transmission and engine information).
		5. Non-passenger automobile (light truck) attribute data (e.g., 4WD and ground clearance measurements).
		6. Any improved AC, OC and full-size pickup truck technologies used each model year to calculate the average fuel economy specified in 40 CFR 600.510-12(c).
		7. Additional reporting fields for AC/OC and other clarifying data fields have been added to the template since last review.
Information for setting future CAFE standards	49 U.S.C. 32902	Information on platform series fuel economy for CAFE Modeling.
Petitions for alternative CAFE standards	§ 525.6 and § 525.7	Petitions for small volume manufacturers seeking relief to allow them to comply with less stringent alternative CAFE standards. Manufacturers submit information on production and fuel efficiency of the vehicles they plan to produce.

Reports on corporate relationship transactions	§ 534.5(e) and § 534.6 and § 536.8(c)	Manufacturers file certified reports when one manufacturer has assumed a controlling stock ownership or control over the design, production or sale of vehicles of another manufacturer, affecting the allocation of credits or liabilities.
Credit Trade Contract	§ 536.5(c) and § 536.8	Manufacturers submit instructions to NHTSA to execute credit transactions using earned, transferred, traded, carry-forward, and carryback credit transactions/allocations using the Credit Transaction Template.
Credit Allocation Plan	§ 536.5(d)	If a manufacturer's vehicles in a particular compliance category have below standard fuel economy, upon notification from NHTSA, the manufacturer will be required to submit a plan indicating how it will allocate existing credits, earn, transfer and/or acquire credits, or pay the appropriate civil penalty.
Credit transaction requests	§ 536.5(e)	Manufacturers submit instructions to NHTSA to execute credit transactions using earned, transferred, traded, carry-forward, and carryback credit transactions/allocations.
Credit Carry-back Plan	§ 536.7	Manufacturers submit plans to carryback credits earned in a compliance category in any model year, pursuant to 49 U.S.C. 32903(b), for up to three model years prior to the year in which the credit was earned.
Credit Value Reporting	§ 536.5(c)	NHTSA will collect credit cost information in accordance with 49 CFR 536.5(c)(5).

Description of the Need for the Information and Proposed Use of the Information: The following table provides a brief description of the need and use of each information collection.

Table VIII-3: Description of Data Collection Uses

Report or Submission Title	Description of how, by whom and what purpose the information is used
Pre-model Year Reports	NHTSA uses these reports for reference to help the agency anticipate potential compliance issues as early as possible and help manufacturers plan compliance strategies. NHTSA also uses the reports for auditing and testing purposes, which helps manufacturers correct errors prior to the end of the model year and facilitates acceptance of their final CAFE report by EPA.
Mid-model Year Reports	NHTSA uses these reports for reference to help the agency anticipate potential compliance issues as early as possible and help manufacturers plan compliance strategies. NHTSA also uses the reports for auditing and testing purposes, which helps manufacturers correct errors prior to the end of the model year and facilitates acceptance of their final CAFE report by EPA.
Supplementary Reports	NHTSA uses these reports to help the agency understand any changes to the production predicted in the pre-model year or mid-model year reports as soon as possible in the reporting cycle. NHTSA also uses the reports for auditing and testing purposes, which helps manufacturers correct errors prior to the end of the model year and facilitates acceptance of their final CAFE report by EPA.
Information for setting future CAFE standards	NHTSA uses certain data from projection reports to prepare a market data file, which supports the development of the CAFE Model.
Petitions for alternative CAFE standards	NHTSA uses these petitions to determine if a manufacturer is eligible for small volume exemptions. If it is determined that they qualify, NHTSA publishes a *Federal Register* Notice.
Reports on corporate relationship transactions	NHTSA uses these reports to determine corporate relationships between manufacturers, and subsequent handling of combined or separated credit banks.
Credit Trade Contract	NHTSA uses these to evaluate if a credit trade can be executed, for example, if there are enough credits available to complete the trade. Once NHTSA has determined the requested trade can be executed, NHTSA uses these reports as instructions to execute the trade.
Credit Allocation Plan	NHTSA uses the credit allocation plans to determine how manufacturers will solve their credit shortfalls each year.
Credit Transaction Requests	NHTSA uses these to evaluate if a credit transaction can be executed, for example, if there are enough credits available to complete the transaction. Once NHTSA has determined the requested transaction can be executed, NHTSA uses these reports as instructions to execute the transaction.
Credit Carry-back Plan	NHTSA uses these to evaluate if a credit transaction can be executed, for example, if there are enough credits available to complete the transaction. Once NHTSA has determined the requested transaction can be executed, NHTSA uses these reports as instructions to execute the transaction.
Credit Value Reporting	NHTSA uses the credit value reporting to determine the value of a credit in the market. This will help NHTSA when setting standards and fines in the future.

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Affected Public: Respondents are manufacturers of engines and vehicles within the North American Industry Classification System (NAICS) and use the coding structure as defined by NAICS, including codes 33611, 336111, 336112, 33631, 33632, 336320, 33635, and 336350 for motor vehicle and parts manufacturing.

Estimated Number of Respondents: 28.

The two largest information collections for the pre-model year and mid-model year reports each have an estimated 25 respondents per year. These respondents are the vehicle manufacturers that manufacture automobiles subject to the CAFE standards in 49 CFR parts 531 and 533 and they must report pursuant to 49 CFR part 537. For the remaining collections, the number of respondents varies each year, as the information is collected on an as-needed basis from the 25 respondents each year, except for the small volume petitions. NHTSA estimates that, on average, three small volume manufacturers will petition NHTSA for alternative standards in each

year, and these three respondents will be unique from those 25 respondents who must submit pre-model year and mid-model year reports annually. Accordingly, NHTSA estimates there will be 28 unique respondents to the CAFE reporting requirements annually.

Frequency: Varies by collection.

The pre-model year and mid-model year reports are both annual reports. However, the other collections are submitted when needed and are generally based on compliance obligations arising in particular circumstances.

Number of Responses: Varies.

NHTSA estimates that there will be an average of 25 responses for the pre-model year and mid-model year reporting requirements. For the other collections, the number of responses varies and NHTSA has provided annualized averages for each collection in Table VIII–4 below.

Estimated Total Annual Burden Hours: 4,576 hours.

The total number of burden hours associated with this collection is estimated to be 4,576 hours. The average number of respondents and responses estimated for each submission type is based on a 3-year average from MY 2026 through MY 2028. Certain reporting elements will be discontinued starting in MY 2028, which is reflected in the 3-year average.

An average of 25 automobile manufacturers submitted CAFE pre-model year and mid-model year reports over MYs 2017–2025 under 49 CFR part 537. Manufacturers use engineers, managers, legal, and clerical staff to prepare and submit CAFE reports to NHTSA. All manufacturers use electronic database systems to produce CAFE reports, and manufacturers can use those databases to export the compliance data required by Part 537. The template has been updated since the last rulemaking based on feedback from manufacturers on functionality. The burden hours associated with producing CAFE reports primarily involve engineers and managers reviewing the output of these database systems. NHTSA estimates that each pre-model year and mid-model year report takes each manufacturer approximately 51 hours. Therefore, NHTSA estimates that manufacturers spend a total of 1,275 hours (25 respondents × 51 hours) each year producing pre-model year reports and 1,275 hours (25 respondents × 51 hours) each year producing the required mid-model year CAFE reports.

Manufacturers may also be required to submit supplementary reports if the information in their mid-model year report needs to be corrected. NHTSA receives on average three supplementary reports from manufacturers each year requesting to make corrections to previously submitted reports. These revisions account for 93 (3 respondents × 31 hours) additional burden hours.

Starting with the 2017 compliance model year, manufacturers began incurring additional burden hours for incorporating information regarding AC technologies, OC technologies, and advanced technology that is applied to full-sized pickup trucks into pre-model year and mid-model year reports. However, this reporting burden will cease when these incentives are no longer applicable, which end in MY 2024 for advanced technology that is applied to full-sized pickup trucks and in MY 2026 for AC and OC technologies. This results in a reduction in burden for submitting pre-model year and mid-model year reports.

Manufacturers may also be required occasionally to submit existing production information (*e.g.,* what engines are shared across vehicle models) to NHTSA for its analysis in modeling potential future economy improvements and standards. The production information is similar to the information submitted as part of EPA's final model year report (*e.g.,* final model year vehicle volumes). NHTSA anticipates that each manufacturer may periodically spend 13 hours for each submission of information for NHTSA's analysis, which will result in a total burden of 325 hours annually (25 respondents × 13 hours) for the automotive industry.

On average, three small volume manufacturers submit petitions for alternative standards to NHTSA each year. These petitions are seeking relief from complying with conventional CAFE standards. These small volume manufacturers primarily include exotic sports car manufacturers (*e.g.,* Aston Martin and McLaren). The associated burden hours involve attorneys, engineers, and managers collecting fuel economy performance and production information on their production vehicles and preparing petitions for submission to NHTSA. These professionals will spend approximately 89 hours to prepare each petition. As a result, the estimated total industry burden will be 267 annual hours (3 respondents × 89 hours) for preparing and submitting CAFE petitions for alternative standards to NHTSA.

Very few manufacturers incur burden each year in submitting documents to NHTSA for corporate relationship changes. On average, only one manufacturer each model year submits documents to NHTSA for corporate relationship changes. The burden hours associated with this activity primarily involve attorneys preparing documents. Minimal amounts of burden hours are necessary for engineers and managers to review documents and for clerical staff to submit them to NHTSA. The estimated total industry burden will be 19 annual hours (1 respondent × 19 hours) for preparing and submitting information on corporate relationship changes to NHTSA.

Nearly all vehicle manufacturers will incur burden hours in managing their CAFE credit accounts each year. Credit management is a significant activity for vehicle manufacturers that are addressing a current credit shortfall or are preparing to avoid one in the future. Manufacturers manage their credit accounts using engineers, managers, and attorneys to prepare documents and then clerical staff to submit credit allocation plans, credit transaction instructions and trade documents to NHTSA. Manufacturers submit credit transaction instructions to NHTSA at various times throughout the model year when transferring credit trades from one manufacturer to another or when submitting a credit allocation plan to NHTSA because of a credit shortfall. On average, based upon compliance data for MYs 2017–2025, NHTSA receives 25 credit transaction instructions from vehicle manufacturers each model year. There are an additional 11 credit shortfalls/credit allocation plans submitted each year. There are an additional 17 credit trades with accompanying credit trades documents, which have been reduced due to credit trades no longer being applicable starting in MY 2028. Both credit allocation plans and credit transaction requests have their labor hour burdens slightly reduced due to credit trades no longer being applicable starting in MY 2028. Therefore, NHTSA estimates that manufacturers will spend a total of approximately 374 hours for credit trade documents each year (17 respondents × 22 hours), 297 hours for credit allocation plans (11 respondents × 27 hours), and 250 hours for credit transaction requests (25 respondents × 10 hours).

NHTSA rarely receives carryback plans. A temporary increase in respondents for carryback plans occurred only for MYs 2019–2021, maintaining the average at approximately one respondent per year. NHTSA estimates that on average 27 hours (1 respondent × 27 hours) will be incurred by any manufacturer preparing a credit carryback plans each year.

NHTSA requires all manufacturers engaging in trades to report credit cost information, so that NHTSA can determine the monetary and non-monetary values of credit trades. Manufacturers are required to submit this information every time they fill out a credit trade contract per 49 CFR 536.5(c)(5). In the 2021 NPRM, NHTSA had proposed a Credit Value Reporting Template to ease the process of reporting credit cost information. In response to comments, NHTSA decided to hold off on requiring the Credit Value Reporting Template. Credit cost information is still required in the format that manufacturers choose to submit to meet the requirements of this section, and the hourly burden remains the same even without a Credit Value Reporting Template. NHTSA currently receives an average of 25 credit trade contracts annually, but the average will drop off due to the removal of credit trading starting in MY 2028, resulting in an estimated average of 17 respondents. Therefore, the total burden hours for submitting credit value information in conjunction with credit trade contracts is estimated to be 374 hours (17 reports × 22 hours). The total combined hours for the industry to manage their credit accounts is estimated to be 1,322 hours annually (374 hours + 297 hours + 250 hours + 27 hours + 374 hours).

Table VIII–4 provides a summary of the annual burden hours for each of the 11 information collections.

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Table VIII-4: Annual Burden Hours

Report or Submission Title	Total Annual Reponses	Manufacturer Labor Hours					Total Fleet Hours
		Engineer	Manager	Legal	Clerical	Burden Per Respondent	
Pre-model Year Reports	25	41	7	1	2	51	1275
Mid-model Year Reports	25	41	7	1	2	51	1275
Supplementary Reports	3	22	6	1	2	31	93
Information for setting future CAFE standards	25	8	4	0	1	13	325
Petitions for alternative CAFE standards	3	40	8	40	1	89	267
Reports on corporate relationship transactions	1	1	1	16	1	19	19
Credit Trade Contract	17	2	2	16	2	22	374
Credit Allocation Plan	11	14	4	8	1	27	297
Credit Transaction Requests	25	7	1	1	1	10	250
Credit Carry-back Plan	1	16	2	8	1	27	27
Credit Value Reporting	17	2	2	16	2	22	374
Totals	153	194	44	108	16	362	4,576

The estimated total annual labor hour cost associated with 4,576 burden hours for CAFE reporting is $437,468.62. The cost is based upon the estimated burden hours and current average labor rates for engineers, managers, attorneys, and clerical staff to prepare and send CAFE information to NHTSA. Table VIII–4 provides the breakdown of the associated costs based upon individual hourly mean wage estimates from the Bureau of Labor Statistics (BLS) for 2024 National Industry-Specific Occupational Employment and Wage Statistics,[598] which are adjusted for employee compensation costs.

BLS estimates that the hourly mean wage for Engineers (Engineer) (BLS Occupation code 17–2199) in the Motor Vehicle Manufacturing Industry is $54.54. BLS estimates that the hourly mean wage for Administrative Services Managers (Manager) (BLS Occupation code 11–3012) in the Motor Vehicle Manufacturing Industry is $69.75. BLS estimates that the hourly mean wage for Lawyers (Legal) (BLS Occupation code 23–1011) in the Motor Vehicle Manufacturing Industry is $117.96. BLS estimates that the hourly mean wage for Other Office and Administrative Support Workers (Clerical) (BLS Occupation code 43–9000) in the Motor Vehicle Manufacturing Industry is $30.34.

In addition to base hourly wages, respondents also incur costs associated with employee compensation. The Bureau of Labor Statistics estimates that private industry workers' wages represent 70.3 percent of total labor compensation costs.[599] Therefore, NHTSA estimates the modified hourly wages used in Table VIII–5 as follows:

- Engineer (17–2199): $77.58
- Manager (11–3012): $99.22
- Legal (23–1011): $167.80
- Clerical (43–9000): $43.16

Table VIII-5: Annual Labor Costs*,**

Report or Submission Title	Hourly Labor Costs				Total Costs per Activity*					Annual Costs (All MFRs)**
	Engineer	Manager	Legal	Clerical	Engineer	Manager	Legal	Clerical	Total Cost	Total Annual Cost
Pre-model Year Reports	$77.58	$99.22	$167.80	$43.16	$3,180.85	$694.52	$167.80	$86.32	$4,129.49	$103,237.20
Mid-model Year Reports	$77.58	$99.22	$167.80	$43.16	$3,180.85	$694.52	$167.80	$86.32	$4,129.49	$103,237.20
Supplementary Reports	$77.58	$99.22	$167.80	$43.16	$1,706.80	$595.31	$167.80	$86.32	$2,556.22	$7,668.65
Information for setting future CAFE standards	$77.58	$99.22	$167.80	$43.16	$620.65	$396.87	$0.00	$43.16	$1,060.68	$26,517.07
Petitions for alternative CAFE standards	$77.58	$99.22	$167.80	$43.16	$3,103.27	$793.74	$6,711.81	$43.16	$10,651.98	$31,955.93
Reports on corporate relationship transactions	$77.58	$99.22	$167.80	$43.16	$77.58	$99.22	$2,684.72	$43.16	$2,904.68	$2,904.68
Credit Trade Contract	$77.58	$99.22	$167.80	$43.16	$155.16	$198.44	$2,684.72	$86.32	$3,124.64	$53,118.83
Credit Allocation Plan	$77.58	$99.22	$167.80	$43.16	$1,086.15	$396.87	$1,342.36	$43.16	$2,868.53	$31,553.88
Credit Transaction Requests	$77.58	$99.22	$167.80	$43.16	$543.07	$99.22	$167.80	$43.16	$853.24	$21,331.08
Credit Carry-back Plan	$77.58	$99.22	$167.80	$43.16	$1,241.31	$198.44	$1,342.36	$43.16	$2,825.26	$2,825.26
Credit Value Reporting	$77.58	$99.22	$167.80	$43.16	$155.16	$198.44	$2,684.72	$86.32	$3,124.64	$53,118.83
Totals					$15,050.87	$4,365.58	$18,121.88	$690.53	$38,228.85	**$437,468.62**

* Based upon the labor hours in Table VIII-3

** Based upon the number of manufacturers involved in each activity as described in Table VIII-3

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Estimated Total Annual Burden Cost: $0.

NHTSA estimates there are no costs to respondents or record keepers other

[598] Bureau of Labor Statistics, 2024 National Industry-Specific Occupational Employment and Wage Statistics NAICS 336100—Motor Vehicle Manufacturing, (2025), available at: *https://data.bls.gov/oes/#/industry/336100* (accessed: Sept. 10, 2025).

[599] Bureau of Labor Statistics, Employer Costs for Employee Compensation by ownership—March 2025, Last revised: Mar. 2025, available at: *https://www.bls.gov/news.release/archives/ecec_06132025.pdf* (accessed: Sept. 10, 2025).

than the labor costs associated with the burden hours.

Public Comments Invited: You are asked to comment on any aspects of this information collection, including (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; (b) the accuracy of the Department's estimate of the burden of the proposed information collection; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Please submit any comments, identified by the docket number in the heading of this document, by the methods described in the **ADDRESSES** section of this document to NHTSA and OMB. Although comments may be submitted during the entire comment period, comments received within 30 days of publication are most useful.

L. Rulemaking Summary, 5 U.S.C. 553(b)(4)

As required by 5 U.S.C. 553(b)(4), a summary of this rule can be found in the Abstract section of the Department's Unified Agenda entry for this rulemaking at *www.reginfo.gov.*

IX. Regulatory Text

List of Subjects

49 CFR Part 523

Fuel economy.

49 CFR Part 531

Energy conservation, Fuel economy, Gasoline, Imports, Motor vehicles, Reporting and recordkeeping requirements.

49 CFR Parts 533, 536, and 537

Fuel economy, Reporting and recordkeeping requirements.

For the reasons discussed in the preamble, NHTSA proposes to amend 49 CFR parts 523, 531, 533, 536, and 537 as follows:

■ 1. Revise part 523 to read as follows:

PART 523—VEHICLE CLASSIFICATION

Sec.

Authority: 49 U.S.C. 32901; delegation of authority at 49 CFR 1.95.

§ 523.1 Scope.

This part establishes categories of vehicles subject to title V of the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 2001 *et seq.*

§ 523.2 Definitions.

As used in this part:

Ambulance has the meaning given in 40 CFR 86.1803.

Approach angle means the smallest angle, in a plane side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the front tire static loaded radius arc and touching the underside of the automobile forward of the front tire.

Axle clearance means the vertical distance from the level surface on which an automobile is standing to the lowest point on the axle differential of the automobile.

Base tire (for passenger automobiles, non-passenger automobiles, and medium-duty passenger vehicles) means the tire size specified as standard equipment by the manufacturer on each unique combination of a vehicle's footprint and model type. Standard equipment is defined in 40 CFR 86.1803.

Basic vehicle frontal area is used as defined in 40 CFR 86.1803–01 for passenger automobiles, non-passenger automobiles, medium-duty passenger vehicles and Class 2b through 3 pickup trucks and vans. For heavy-duty tracts and vocational vehicles, it has the meaning given in 40 CFR 1037.801.

Breakover angle means the supplement of the largest angle, in the plane side view of an automobile that can be formed by two lines tangent to the front and rear static loaded radii arcs and intersecting at a point on the underside of the automobile.

Bus has the meaning given in 49 CFR 571.3.

Cab-complete vehicle means a vehicle that is first sold as an incomplete vehicle that substantially includes the vehicle cab section as defined in 40 CFR 1037.801. For example, vehicles known commercially as chassis-cabs, cab-chassis, box-deletes, bed-deletes, and cut-away vans are considered cab-complete vehicles. A cab includes a steering column and a passenger compartment. Note that a vehicle lacking some components of the cab is a cab-complete vehicle if it substantially includes the cab.

Cargo-carrying volume means the luggage capacity or cargo volume index, as appropriate, and as those terms are defined in 40 CFR 600.315–08, in the case of automobiles to which either of these terms apply. With respect to automobiles to which neither of these terms apply, ''cargo-carrying volume'' means the total volume in cubic feet, rounded to the nearest 0.1 cubic feet, of either an automobile's enclosed non-seating space that is intended primarily for carrying cargo and is not accessible from the passenger compartment, or the space intended primarily for carrying cargo bounded in the front by a vertical plane that is perpendicular to the longitudinal centerline of the automobile and passes through the rearmost point on the rearmost seat and elsewhere by the automobile's interior surfaces.

Class 2b vehicles are vehicles with a gross vehicle weight rating (GVWR) ranging from 8,501 to 10,000 pounds.

Class 3 through Class 8 vehicles are vehicles with a gross vehicle weight rating (GVWR) of 10,001 pounds or more as defined in 49 CFR 565.15.

Coach bus has the meaning given in 40 CFR 1037.801.

Commercial medium- and heavy-duty on-highway vehicle means an on-highway vehicle with a gross vehicle weight rating of 10,000 pounds or more as defined in 49 U.S.C. 32901(a)(7).

Complete vehicle has the meaning given to *completed vehicle* as defined in 49 CFR 567.3.

Concrete mixer has the meaning given in 40 CFR 1037.801.

Curb weight means the actual weight of the vehicle in operational status, including the weight of all standard and all optional equipment installed on the vehicle as sold to the first retail purchaser, and the weight of fuel at nominal tank capacity.

Dedicated vehicle has the same meaning as dedicated automobile as defined in 49 U.S.C. 32901(a)(8).

Departure angle means the smallest angle, in a plane side view of an automobile, formed by the level surface on which the automobile is standing and a line tangent to the rear tire static loaded radius arc and touching the underside of the automobile rearward of the rear tire.

Dual-fueled vehicle (multi-fuel, or flexible-fuel vehicle) has the same meaning as dual fueled automobile as defined in 49 U.S.C. 32901(a)(9).

Electric vehicle means a vehicle that does not include a combustion engine and is powered solely by an external source of electricity and/or solar power. Note that this does not include hybrid-electric or hydrogen combustion vehicles that use a chemical fuel such as gasoline, diesel fuel, or hydrogen.

Electric vehicles may also be referred to as BEVs and fuel cell electric vehicles to distinguish them from hybrid-electric vehicles.

Emergency vehicle means one of the following:

(1) For passenger automobiles, non-passenger automobiles, and medium-duty passenger vehicles, emergency vehicle has the meaning given in 49 U.S.C. 32902(e).

(2) For heavy-duty vehicles, emergency vehicle has the meaning given in 40 CFR 1037.801.

Engine code has the meaning given in 40 CFR 86.1803.

Final-stage manufacturer has the meaning given in 49 CFR 567.3.

Fire truck has the meaning given in 40 CFR 86.1803.

Footprint is defined as the product of track width (measured in inches, calculated as the average of front and rear track widths, and rounded to the nearest tenth of an inch) times wheelbase (measured in inches and rounded to the nearest tenth of an inch), divided by 144 and then rounded to the nearest tenth of a square foot. For purposes of this definition, track width is the lateral distance between the centerlines of the base tires at ground, including the camber angle. For purposes of this definition, wheelbase is the longitudinal distance between front and rear wheel centerlines.

Full-size pickup truck means a non-passenger automobile, including a medium-duty passenger vehicle, that meets the specifications in 40 CFR 86.1803–01 for a full-size pickup truck.

Gross axle weight rating (GAWR) has the meaning given in 49 CFR 571.3.

Gross combination weight rating (GCWR) has the meaning given in 49 CFR 571.3.

Gross vehicle weight rating (GVWR) has the meaning given in 49 CFR 571.3.

Heavy-duty engine means any engine used for (or for which the engine manufacturer could reasonably expect to be used for) motive power in a heavy-duty vehicle. For purposes of this definition in this part, the term ''engine'' includes internal combustion engines and other devices that convert chemical fuel into motive power. For example, a fuel cell and motor used in a heavy-duty vehicle is a heavy-duty engine. Heavy duty-engines include those engines subject to the standards in 49 CFR part 535.

Heavy-duty vehicle means a vehicle as defined in § 523.6.

Hitch means a device attached to the chassis of a vehicle for towing.

Incomplete vehicle has the meaning given in 49 CFR 567.3.

Manufacturer has the meaning given in 49 U.S.C. 32901(a)(14).

Medium-duty passenger vehicle means any complete or incomplete motor vehicle rated at more than 8,500 pounds GVWR and less than 10,000 pounds GVWR that is designed primarily to transport passengers, but does not include a vehicle that—

(1) Is an ''incomplete truck,'' meaning any truck that does not have the primary load carrying device or container attached; or

(2) Has a seating capacity of more than 12 persons; or

(3) Is designed for more than 9 persons in seating rearward of the driver's seat; or

(4) Is equipped with an open cargo area (for example, a pick-up truck box or bed) of 72.0 inches in interior length or more. A covered box not readily accessible from the passenger compartment will be considered an open cargo area for purposes of this definition. (See paragraph (1) of the definition of *medium-duty passenger vehicle* at 40 CFR 86.1803–01.)

Mild hybrid gasoline-electric vehicle means a vehicle as defined by EPA in 40 CFR 86.1866–12(e).

Motor home has the meaning given in 49 CFR 571.3.

Motor vehicle has the meaning given in 49 U.S.C. 30102.

Nominal tank capacity means a fuel tank's volume as specified by the manufacturer.

Optional equipment means any equipment or feature not standard on a vehicle model that is installed by the manufacturer or provided by the manufacturer for installation prior to a vehicle's first retail purchase.

Passenger-carrying volume means the sum of the front seat volume and, if any, rear seat volume, as defined in 40 CFR 600.315–08, in the case of automobiles to which that term applies. With respect to automobiles to which that term does not apply, ''passenger-carrying volume'' means the sum in cubic feet, rounded to the nearest 0.1 cubic feet, of the volume of a vehicle's front seat and seats to the rear of the front seat, as applicable, calculated as follows with the head room, shoulder room, and leg room dimensions determined in accordance with the procedures outlined in Society of Automotive Engineers Recommended Practice J1100, Motor Vehicle Dimensions (Report of Human Factors Engineering Committee, Society of Automotive Engineers, approved November 2009).

(1) For front seat volume, divide 1,728 into the product of the following SAE dimensions, measured in inches to the nearest 0.1 inches, and round the quotient to the nearest 0.001 cubic feet.

(i) H61-Effective head room—front.

(ii) W3-Shoulder room—front.

(iii) L34-Maximum effective leg room-accelerator.

(2) For the volume of seats to the rear of the front seat, divide 1,728 into the product of the following SAE dimensions, measured in inches to the nearest 0.1 inches, and rounded the quotient to the nearest 0.001 cubic feet.

(i) H63-Effective head room—second.

(ii) W4-Shoulder room—second.

(iii) L51-Minimum effective leg room—second.

Pickup truck means a non-passenger automobile that has a passenger compartment and an open cargo area (bed).

Pintle hooks means a type of towing hitch that uses a tow ring configuration to secure to a hook or a ball combination for the purpose of towing.

Recreational vehicle or RV means a motor vehicle equipped with living space and amenities found in a motor home.

Refuse hauler has the meaning given in 40 CFR 1037.801.

Running clearance means the distance from the surface on which an automobile is standing to the lowest point on the automobile, excluding unsprung weight.

School bus has the meaning given in 49 CFR 571.3.

Static loaded radius arc means a portion of a circle whose center is the center of a standard tire-rim combination of an automobile and whose radius is the distance from that center to the level surface on which the automobile is standing, measured with the automobile at curb weight, the wheel parallel to the vehicle's longitudinal centerline, and the tire inflated to the manufacturer's recommended pressure.

Strong hybrid gasoline-electric vehicle means a vehicle as defined by EPA in 40 CFR 86.1866–12(e).

Temporary living quarters means a space in the interior of an automobile in which people may temporarily live that includes sleeping surfaces, such as beds, and household conveniences, such as a sink, stove, refrigerator, or toilet.

Transmission class has the meaning given in 40 CFR 600.002.

Transmission configuration has the meaning given in 40 CFR 600.002.

Transmission type has the meaning given in 40 CFR 86.1803.

Truck tractor has the meaning given in 49 CFR 571.3 and 49 CFR 535.5(c). This includes most heavy-duty vehicles specifically designed for the primary purpose of pulling trailers, but does not include vehicles designed to carry other loads. For purposes of this definition ''other loads'' would not include loads

carried in the cab, sleeper compartment, or toolboxes. Examples of vehicles similar to tractors but not tractors under this part include dromedary tractors, automobile haulers, straight trucks with trailers hitches, and tow trucks.

Van means a vehicle with a body that fully encloses the driver and a cargo carrying or work performing compartment. The distance from the leading edge of the windshield to the foremost body section of vans is typically shorter than that of pickup trucks and sport utility vehicles.

Vocational tractor means a tractor that is classified as a vocational vehicle according to 40 CFR 1037.630

Vocational vehicle (or heavy-duty vocational vehicle) has the meaning given in § 523.8 and 49 CFR 535.5(b). This includes any vehicle that is equipped for a particular industry, trade, or occupation such as construction, heavy hauling, mining, logging, oil fields, or refuse and includes vehicles such as school buses, motorcoaches, and RVs.

Work truck means a vehicle that is rated at more than 8,500 pounds and less than or equal to 10,000 pounds gross vehicle weight, and is not a medium-duty passenger vehicle as defined in 49 U.S.C. 32901(a)(19).

§ 523.3 Automobile.

An automobile is any 4-wheeled vehicle propelled by fuel, or by alternative fuel, manufactured primarily for use on public streets, roads, and highways and rated at less than 10,000 pounds gross vehicle weight, except:

(a) A vehicle operated only on a rail line;

(b) A vehicle manufactured in different stages by 2 or more manufacturers, if no intermediate or final-stage manufacturer of that vehicle manufactures more than 10,000 multi-stage vehicles per year; or

(c) A work truck.

§ 523.4 Passenger automobile.

A passenger automobile is any automobile (other than an automobile capable of off-highway operation) manufactured primarily for use in the transportation of not more than 10 individuals. A medium-duty passenger vehicle that does not meet the criteria for non-passenger motor vehicles in § 523.5 is a passenger automobile.

§ 523.5 Non-passenger automobile.

A non-passenger automobile means an automobile that is not a work truck and possesses one or more of the characteristics described in paragraph (a) of this section or meets the off-highway features described in paragraph (b) of this section. A medium-duty passenger vehicle that meets the criteria in either paragraph (a) or (b) of this section is a non-passenger automobile.

(a) An automobile not manufactured primarily for transporting 10 or fewer individuals, determined by the presence of at least one of the following chief characteristics:

(1) Transports more than 10 individuals;

(2) Provides temporary living quarters, as defined in § 523.2 of this chapter;

(3) Transports property on an open bed;

(4) Provides, as sold to the first retail purchaser, greater cargo-carrying than passenger-carrying volume, such as in a cargo van; if a vehicle is sold with two or more rows of seating, its cargo-carrying volume is determined with those seats installed, regardless of whether the manufacturer has described that seat as optional; or

(5) Permits expanded use of the automobile for cargo-carrying purposes or other non-passenger-carrying purposes through:

(i) For automobiles manufactured in model year 2022 through model year 2027, for vehicles equipped with at least 3 rows of designated seating positions as standard equipment, permit expanded use of the automobile for cargo-carrying purposes or other non-passenger-carrying purposes through the removal or stowing of foldable or pivoting seats so as to create a flat, leveled cargo surface extending from the forwardmost point of installation of those seats to the rear of the automobile's interior.

(ii) [Reserved]

(6) For automobiles manufactured in model year 2028 and beyond, as sold to the first retail purchaser, has a light-duty work factor (LDWF) value greater than or equal to 5500, calculated according to Figure 1 to this paragraph (a).

Figure 1 to § 523.5(a)

$$LDWF = \frac{1}{3} * [GVWR - C_w] + \frac{2}{3} * [GCWR - GVWR]$$

Where:

GVWR is the gross vehicle weight rating;
C_w is the curb weight;
GCWR is the gross combined weight rating;
GVWR minus C_w is the payload capacity;
GCWR minus GVWR is the towing capacity.

(b) An automobile capable of off-highway operation, as indicated by the presence of the significant features contained in this paragraph (b):

(1) (i) Has 4-wheel drive; or

(ii) Is rated at more than 6,000 pounds gross vehicle weight; and

(2) For automobiles manufactured through model year 2027, has at least four of the following high ground clearance feature characteristics measured when the automobile is at curb weight, on a level surface, with the front wheels parallel to the automobile's longitudinal centerline, and the tires inflated to the manufacturer's recommended pressure—

(i) Approach angle of not less than 28 degrees.

(ii) Breakover angle of not less than 14 degrees.

(iii) Departure angle of not less than 20 degrees.

(iv) Running clearance of not less than 20 centimeters.

(v) Front and rear axle clearances of not less than 18 centimeters each.

(3) For automobiles manufactured in model year 2028 and beyond, has all four of the following high ground clearance feature characteristics measured when the automobile is at curb weight, on a level surface, with the front wheels parallel to the automobile's longitudinal centerline, and the tires inflated to the manufacturer's recommended pressure—

(i) Approach angle of not less than 28 degrees.

(ii) Breakover angle of not less than 14 degrees.

(iii) Departure angle of not less than 20 degrees.

(iv) Running clearance of not less than 20 centimeters.

§ 523.6 Heavy-duty vehicle.

(a) A heavy-duty vehicle is any commercial medium- or heavy-duty on-highway vehicle or a work truck, as defined in 49 U.S.C. 32901(a)(7) and (19). For the purpose of this section, heavy-duty vehicles are divided into three regulatory categories as follows:

(1) Heavy-duty pickup trucks and vans;

(2) Heavy-duty vocational vehicles; and

(3) Truck tractors with a GVWR above 26,000 pounds.

(b) The heavy-duty vehicle classification does not include vehicles excluded as specified in 49 CFR 535.3.

§ 523.7 Heavy-duty pickup trucks and vans.

(a) Heavy-duty pickup trucks and vans are pickup trucks and vans with a gross vehicle weight rating between 8,501 pounds and 14,000 pounds (Class 2b through 3 vehicles) manufactured as complete vehicles by a single or final-stage manufacturer or manufactured as incomplete vehicles as designated by a manufacturer. See references in 40 CFR 86.1801–12, 40 CFR 86.1819–17, 40 CFR 1037.150, and 49 CFR 535.5(a).

(b) Heavy duty vehicles above 14,000 pounds GVWR may be optionally certified as heavy-duty pickup trucks and vans and comply with fuel consumption standards in 49 CFR 535.5(a), if properly included in a test group with similar vehicles at or below 14,000 pounds GVWR. Fuel consumption standards apply to these vehicles as if they were Class 3 heavy-duty vehicles. The work factor for these vehicles may not be greater than the largest work factor that applies for vehicles in the test group that are at or below 14,000 pounds GVWR (see 40 CFR 86.1819–14).

(c) Incomplete heavy-duty vehicles at or below 14,000 pounds GVWR may be optionally certified as heavy-duty pickup trucks and vans and comply with the fuel consumption standards in 49 CFR 535.5(a).

§ 523.8 Heavy-duty vocational vehicle.

Heavy-duty vocational vehicles are vehicles with a gross vehicle weight rating (GVWR) above 8,500 pounds excluding:

(a) Heavy-duty pickup trucks and vans defined in § 523.7;

(b) Medium-duty passenger vehicles; and

(c) Truck tractors, except vocational tractors, with a GVWR above 26,000 pounds.

§ 523.9 Truck tractors.

Truck tractors for the purpose of this part are considered as any truck tractor as defined in 49 CFR part 571 having a GVWR above 26,000 pounds.

§ 523.10 Heavy-duty trailers.

(a) A trailer means a motor vehicle with or without motive power, designed for carrying cargo and for being drawn by another motor vehicle as defined in 49 CFR 571.3. For the purpose of this part, heavy-duty trailers include only those trailers designed to be drawn by a truck tractor excluding non-box trailers other than flatbed trailers, tanker trailers, and container chassis, and those that are coupled to vehicles exclusively by pintle hooks or hitches instead of a fifth wheel. Heavy-duty trailers may be divided into different types and categories as follows:

(1) Box vans are trailers with enclosed cargo space that is permanently attached to the chassis, with fixed sides, nose, and roof. Tank trailers are not box vans.

(2) Box vans with front-mounted HVAC systems are refrigerated vans. Note that this includes systems that provide cooling, heating, or both. All other box vans are dry vans.

(3) Trailers that are not box vans are non-box trailers.

(4) Box vans with a length greater than 50 feet are long box vans. Other box vans are short box vans.

(5) The following types of equipment are not trailers:

(i) Containers that are not permanently mounted on chassis.

(ii) Dollies used to connect tandem trailers.

(iii) Equipment that serves similar purposes but are not intended to be pulled by a tractor.

(b) Heavy-duty trailers do not include trailers excluded in 49 CFR 535.3.

■ 2. Revise part 531 to read as follows:

PART 531—PASSENGER AUTOMOBILE AVERAGE FUEL ECONOMY STANDARDS

Sec.

Authority: 49 U.S.C. 32902, delegation of authority at 49 CFR 1.95.

§ 531.1 Scope.

This part establishes average fuel economy standards pursuant to 49 U.S.C. 32902 for passenger automobiles.

§ 531.2 Purpose.

The purpose of this part is to increase the fuel economy of passenger automobiles by establishing minimum levels of average fuel economy for those vehicles.

§ 531.3 Applicability.

This part applies to manufacturers of passenger automobiles.

§ 531.4 Definitions.

(a) *Statutory terms.* (1) The terms *average fuel economy, manufacture, manufacturer,* and *model year* are used as defined in 49 U.S.C. 32901.

(2) The terms *automobile* and *passenger automobile* are used as defined in 49 U.S.C. 32901 and in accordance with the determination in part 523 of this chapter.

(b) *Other terms.* As used in this part, unless otherwise required by the context—

(1) The term *domestically manufactured passenger automobile* means the vehicle is deemed to be manufactured domestically under 49 U.S.C. 32904(b)(3) and 40 CFR 600.511–08.

(2) [Reserved]

§ 531.5 Fuel economy standards.

(a) Except as provided in paragraph (c) of this section, for model years 2022 through 2031, a manufacturer's passenger automobile fleet shall comply with the fleet average fuel economy level calculated for that model year according to Figure 1 to this paragraph (a) and the appropriate values in Table 1 to this paragraph (a).

Figure 1 to Paragraph (a)

$$CAFE_{required} = \frac{\sum_i PRODUCTION_i}{\sum_i \frac{PRODUCTION_i}{TARGET_i}}$$

Where:

$CAFE_{required}$ is the fleet average fuel economy standard for a given fleet (domestic passenger automobiles or imported passenger automobiles);

Subscript i is a designation of multiple groups of automobiles, where each group's designation, *i.e.,* i = 1, 2, 3, etc., represents automobiles that share a unique model type and footprint within the applicable fleet, either domestic passenger automobiles or imported passenger automobiles;

$Production_i$ is the number of passenger automobiles produced for sale in the United States within each *ith* designation, *i.e.,* which share the same model type and footprint; and

$TARGET_i$ is the fuel economy target in miles per gallon (mpg) applicable to the footprint of passenger automobiles within each *ith* designation, *i.e.,* which share the same model type and footprint, calculated according to Figure 2 to this paragraph (a) and rounded to the nearest hundredth of a mpg, *i.e.,* 35.455 = 35.46 mpg, and the summations in the numerator and denominator are both performed over all models in the fleet in question.

Figure 2 to Paragraph (a)

$$TARGET = \frac{1}{MIN\left[MAX\left(c \times FOOTPRINT + d, \frac{1}{a}\right), \frac{1}{b}\right]}$$

Where:

TARGET is the fuel economy target (in mpg) applicable to vehicles of a given footprint (*FOOTPRINT*, in square feet);

Parameters *a, b, c,* and *d* are defined in Table 1 to this paragraph (a); and

The *MIN* and *MAX* functions take the minimum and maximum, respectively, of the included values.

Table 1 to Paragraph (a)—Parameters for the Passenger Automobile Fuel Economy Targets, MYs 2022-2031

Model year	Parameters			
	a (mpg)	b (mpg)	c (gal/mi/ft^2)	d (gal/mi)
2022	38.14	32.51	0.00041302	0.00845926
2023	38.33	32.67	0.00041097	0.00841718
2024	38.52	32.83	0.00040892	0.00837530
2025	38.71	33.00	0.00040689	0.00833363
2026	38.91	33.16	0.00040487	0.00829217
2027	39.04	33.28	0.00040346	0.00826345
2028	40.57	30.38	0.00068863	-0.00634053
2029	40.67	30.46	0.00068691	-0.00632468
2030	40.78	30.54	0.00068519	-0.00630887
2031	40.88	30.61	0.00068348	-0.00629310

(b) In addition to the requirements of paragraph (a) of this section, each manufacturer, other than manufacturers subject to standards in paragraph (c) of this section, shall also meet the minimum fleet standard for domestically manufactured passenger automobiles expressed in Table 2 to this paragraph (b):

Table 2 to Paragraph (b)—Minimum Fuel Economy Standards for Domestically Manufactured Passenger Automobiles, MYs 2022-2031

Model year	Minimum standard
2022	33.1
2023	33.1
2024	33.5
2025	33.7
2026	33.9
2027	33.8
2028	33.9
2029	34.0
2030	34.0
2031	34.1

(c) The following manufacturers shall comply with the standards indicated in paragraphs (c)(1) through (4) of this section for the specified model years:

(1) *Aston Martin Lagonda Limited.*

Table 3 to § 531.5(c)(1)—Average Fuel Economy Standards

Model year	Miles per gallon
2022	24.9
2023	24.9

(2) *Koenigsegg.*

Table 4 to § 531.5(c)(2)—Average Fuel Economy Standards

Model year	Miles per gallon
2022	16.9
2023	16.9

(3) *McLaren.*

Table 5 to § 531.5(c)(3)—Average Fuel Economy Standards

Model year	Miles per gallon
2022	24.6
2023	25.7

(4) *Pagani.*

Table 6 to § 531.5(c)(4)—Average Fuel Economy Standards

Model year	Miles per gallon
2022	15.5
2023	15.5

§ 531.6 Measurement and calculation procedures.

The fleet average fuel economy performance of all passenger automobiles manufactured for sale in the United States for a model year shall be determined in accordance with procedures established by the Administrator of the Environmental Protection Agency (EPA) under 49 U.S.C. 32904 and set forth in 40 CFR part 600.

Appendix A to Part 531—Example of Calculating a Fleet Average Fuel Economy Standard for a Passenger Automobile Fleet Under § 531.5(a)

Assume a hypothetical manufacturer (Manufacturer X) produces a fleet of passenger automobiles as follows:

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Appendix A—Table I

Model type				Description	Base tire size	Wheelbase (inches)	Track width F&R average (inches)	Footprint (ft^2)	Volume	Fuel economy target standard (mpg)
Group	Carline name	Basic engine (L)	Transmission class							
1	PC A FWD	1.8	A5	2-door sedan	205/75R14	99.8	61.2	42.4	1,500	35.01
2	PC A FWD	1.8	M6	2-door sedan	215/70R15	99.8	60.9	42.2	2,000	35.14
3	PC A FWD	2.5	A6	4-door wagon	215/70R15	100.0	60.9	42.3	2,000	35.08
4	PC A AWD	1.8	A6	4-door wagon	235/60R15	100.0	61.2	42.5	1,000	35.95
5	PC A AWD	2.5	M6	2-door hatchback	225/65R16	99.6	59.5	41.2	3,000	35.81
6	PC B RWD	2.5	A6	4-door wagon	265/55R18	109.2	66.8	50.7	8,000	30.33
7	PC B RWD	2.5	A7	4-door sedan	235/65R17	109.2	67.8	51.4	2,000	29.99
8	PC C AWD	3.2	A7	4-door sedan	265/55R18	111.3	67.8	52.4	5,000	29.52
9	PC C FWD	3.2	M6	2-door coupe	225/65R16	111.3	67.2	51.9	3,000	29.76
	TOTAL								27,500	

NOTE TO TABLE I TO THIS APPENDIX: With the appropriate fuel economy targets determined for each unique model type and footprint combination, Manufacturer X's required fleet average fuel economy standard would be calculated as illustrated in Figure 1 to this appendix.

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Appendix A Figure 1—Calculation of Manufacturer X's Fleet Average Fuel Economy Standard Using Table I

$$FE_{Standard} = \frac{(Manufacturer's\ Passenger\ Automobile\ Production\ for\ Applicable\ Model\ Year)}{\sum_i \left(\frac{Group_1\ Production}{Group_1\ Target\ Standard} + \frac{Group_2\ Production}{Group_2\ Target\ Standard} + \cdots + \frac{Group_9\ Production}{Group_9\ Target\ Standard}\right)}$$

$$FE_{Standard} = \frac{27{,}500}{\left(\frac{1{,}500}{35.01} + \frac{2{,}000}{35.14} + \frac{2{,}000}{35.08} + \frac{1{,}000}{35.95} + \frac{3{,}000}{35.81} + \frac{8{,}000}{30.33} + \frac{2{,}000}{29.99} + \frac{5{,}000}{29.52} + \frac{3{,}000}{29.79}\right)}$$

$$FE_{Standard} = 31.6\ mpg$$

■ 3. Revise part 533 to read as follows:

PART 533—NON–PASSENGER AUTOMOBILE FUEL ECONOMY STANDARDS

Sec.

Authority: 49 U.S.C. 32902; delegation of authority at 49 CFR 1.95.

§ 533.1 Scope.

This part establishes average fuel economy standards pursuant to 49 U.S.C. 32902 for non-passenger automobiles.

§ 533.2 Purpose.

The purpose of this part is to increase the fuel economy of non-passenger automobiles by establishing minimum levels of average fuel economy for those vehicles.

§ 533.3 Applicability.

This part applies to manufacturers of non-passenger automobiles.

§ 533.4 Definitions.

(a) *Statutory terms.* (1) The terms *average fuel economy, average fuel economy standard, fuel economy, import, manufacture, manufacturer,* and *model year* are used as defined in 49 U.S.C. 32901.

(2) The term *automobile* is used as defined in 49 U.S.C. 32901 and in accordance with the determinations in part 523 of this chapter.

(b) *Other terms.* As used in this part, unless otherwise required by the context—

(1) *Non-passenger automobile* is used in accordance with the determinations in part 523 of this chapter.

(2) *Captive import* means, with respect to a non-passenger automobile, one that is not domestically manufactured, as defined in section 502(b)(2)(E) of the Motor Vehicle Information and Cost Savings Act, but that is imported in the 1980 model year or thereafter by a manufacturer whose principal place of business is in the United States.

(3) *4-wheel drive, general utility vehicle* means a 4-wheel drive, general purpose automobile capable of off-highway operation that has a wheelbase of not more than 280 centimeters, and that has a body shape similar to 1977 Jeep CJ–5 or CJ–7, or the 1977 Toyota Land Cruiser.

(4) *Basic engine* means a unique combination of manufacturer, engine displacement, number of cylinders, fuel system (as distinguished by number of carburetor barrels or use of fuel injection), and catalyst usage.

(5) *Limited product line non-passenger automobile* means a non-passenger automobile manufactured by a manufacturer whose light truck fleet is powered exclusively by basic engines that are not also used in passenger automobiles.

§ 533.5 Requirements.

(a) Each manufacturer of non-passenger automobiles shall comply with the following fleet average fuel economy standards, expressed in miles per gallon, in the model year (MY) specified as applicable:

(1) For model years 2022–2031, a manufacturer's non-passenger automobile fleet shall comply with the fleet average fuel economy standard calculated for that model year according to Figures 1 and 2 to this paragraph (a) and the appropriate values in Table 1 to this paragraph (a).

Figure 1 to § 533.5(a)

$$CAFE_{required} = \frac{\sum_i PRODUCTION_i}{\sum_i \frac{PRODUCTION_i}{TARGET_i}}$$

Where:

$CAFE_{required}$ is the fleet average fuel economy standard for a given non-passenger automobile fleet;

Subscript *i* is a designation of multiple groups of non-passenger automobiles, where each group's designation, *i.e., i* = 1, 2, 3, etc., represents non-passenger automobiles that share a unique model type and footprint within the applicable fleet;

$Production_i$ is the number of non-passenger automobiles produced for sale in the United States within each *ith* designation, *i.e.,* which share the same model type and footprint; and

$TARGET_i$ is the fuel economy target in miles per gallon (mpg) applicable to the footprint of non-passenger automobiles within each *ith* designation, *i.e.,* which share the same model type and footprint, calculated according to Figure 2 to this paragraph (a) and rounded to the nearest hundredth of a mpg, *i.e.,* 35.455 = 35.46 mpg, and the summations in the numerator and denominator are both performed over all models in the fleet in question.

Figure 2 to § 533.5(a)

$$TARGET = \frac{1}{MIN\left[MAX\left(c \times FOOTPRINT + d, \frac{1}{a}\right), \frac{1}{b}\right]}$$

Where:

TARGET is the fuel economy target (in mpg) applicable to vehicles of a given footprint (*FOOTPRINT,* in square feet);

Parameters *a, b, c,* and d are defined in Table 1 to this paragraph (a); and

The *MIN* and *MAX* functions take the minimum and maximum, respectively, of the included values.

Table 1 to § 533.5(a)—Parameters for the Non-Passenger Automobile Fuel Economy Targets for MYs 2022-2031

Model year	Parameters			
	a (mpg)	b (mpg)	c (gal/mi/ft^2)	d (gal/mi)
2022	34.89	20.33	0.00064166	0.00171340
2023	35.06	20.43	0.00063847	0.00170487
2024	35.24	20.53	0.00063529	0.00169639
2025	35.41	20.63	0.00063213	0.00168795
2026	35.59	20.74	0.00062899	0.00167955
2027	35.84	20.88	0.00062460	0.00166784
2028	31.45	25.92	0.00037701	0.01218745
2029	31.53	25.99	0.00037607	0.01215698
2030	31.61	26.05	0.00037513	0.01212659
2031	31.69	26.12	0.00037419	0.01209627

(2) [Reserved]

(b) [Reserved]

§ 533.6 Measurement and calculation procedures.

(a) Any reference to a class of non-passenger automobiles manufactured for sale in the United States in a model year shall be deemed—

(1) To include all non-passenger automobiles in that class manufactured by persons who control, are controlled by, or are under common control with, such manufacturer;

(2) To include only automobiles that qualify as non-passenger vehicles in accordance with § 523.5 of this chapter; and

(3) To exclude all non-passenger automobiles in that class manufactured (within the meaning of paragraph (a)(1) of this section) during a model year by such manufacturer that are exported prior to the expiration of 30 days following the end of such model year.

(b) The fleet average fuel economy performance of all non-passenger automobiles manufactured for sale in the United States in a model year shall be determined in accordance with procedures established by the Administrator of the Environmental Protection Agency (EPA) under 49 U.S.C. 32904 and set forth in 40 CFR part 600.

Appendix A to Part 533—Example of Calculating a Fleet Average Fuel Economy Standard for a Non-Passenger Automobile Fleet Under § 533.5(a)

Assume a hypothetical manufacturer (Manufacturer X) produces a fleet of non-passenger automobiles as follows:

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Appendix A—Table I

Model type				Description	Base tire size	Wheelbase (inch)	Track width F&R avg (inch)	Footprint (ft^2)	Volume	Fuel economy target standard (mpg)
Group	Carline name	Basic engine (L)	Transmission class							
1	Pickup A 2WD	4	A5	Reg cab, MB	235/75R15	100.0	68.8	47.8	800	27.30
2	Pickup B 2WD	4	M5	Reg cab, MB	235/75R15	100.0	68.2	47.4	200	27.44
3	Pickup C 2WD	4.5	A5	Reg cab, LB	255/70R17	125.0	68.8	59.7	300	23.79
4	Pickup C 2WD	4	M5	Ext cab, MB	255/70R17	125.0	68.8	59.7	400	23.79
5	Pickup C 4WD	4.5	A5	Crew cab, SB	275/70R17	150.0	69.0	71.9	400	22.27
6	Pickup D 2WD	4.5	A6	Crew cab, SB	255/70R17	125.0	68.8	59.7	400	23.79
7	Pickup E 2WD	5	A6	Ext cab, LB	255/70R17	125.0	68.8	59.7	500	23.79
8	Pickup E 2WD	5	A6	Crew cab, MB	285/70R17	125.0	69.2	60.1	500	23.68
9	Pickup F 2WD	4.5	A5	Reg cab, LB	255/70R17	125.0	68.9	59.8	1,600	23.76
10	Pickup F 4WD	4.5	A5	Ext cab, MB	275/70R17	150.0	69.0	71.9	800	22.27
11	Pickup F 4WD	4.5	A5	Crew cab, SB	285/70R17	150.0	69.2	72.1	800	22.27
Total									6,700	

NOTE TO TABLE I TO THIS APPENDIX: With the appropriate fuel economy targets determined for each unique model type and footprint combination, Manufacturer X's required fleet average fuel economy standard would be calculated as illustrated in Figure 1 to this appendix:

Appendix A Figure 1—Calculation of Manufacturer X's Fleet Average Fuel Economy Standard Using Table I

$$FE_{Standard} = \frac{(Manufacturer's\ Light\ Truck\ Production\ for\ Applicable\ Model\ Year)}{\sum_i \left(\frac{Group_1\ Production}{Group_1\ Target\ Standard} + \frac{Group_2\ Production}{Group_2\ Target\ Standard} + \cdots + \frac{Group_{11}\ Production}{Group_{11}\ Target\ Standard}\right)}$$

$$FE_{Standard} = \frac{6{,}700}{\left(\frac{800}{27.30} + \frac{200}{27.44} + \frac{300}{23.79} + \frac{400}{23.79} + \frac{400}{22.27} + \frac{400}{23.79} + \frac{500}{23.79} + \frac{500}{23.68} + \frac{1{,}600}{23.76} + \frac{800}{22.27} + \frac{800}{22.27}\right)}$$

$$FE_{Standard} = 23.7\ mpg$$

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■ 4. Revise part 536 to read as follows:

PART 536—TRANSFER AND TRADING OF FUEL ECONOMY CREDITS

Sec.

Authority: 49 U.S.C. 32903; delegation of authority at 49 CFR 1.95.

§ 536.1 Scope.

This part establishes regulations governing the use and application of corporate average fuel economy (CAFE) credits up to three model years before and five model years after the model year in which the credit was earned. It also specifies requirements for manufacturers wishing to transfer fuel economy credits between their compliance categories. It also establishes regulations that allow manufacturers and other persons to trade fuel economy credits through model year 2027.

§ 536.2 Application.

This part applies to all credits earned for exceeding applicable average fuel economy standards in a given model year for domestically manufactured passenger automobiles, imported passenger automobiles, and non-passenger automobiles.

§ 536.3 Definitions.

(a) *Statutory terms.* All terms defined in 49 U.S.C. 32901(a) are used pursuant to their statutory meaning.

(b) *Other terms.* (1) *Above standard fuel economy* means, with respect to a compliance category, that the automobiles manufactured by a manufacturer in that compliance category in a particular model year have greater average fuel economy (calculated in a manner that reflects the incentives for alternative fuel automobiles per 49 U.S.C. 32905) than that manufacturer's fuel economy standard for that compliance category and model year.

(2) *Adjustment factor* means a factor used to adjust the value of a traded or transferred credit for compliance purposes to ensure that the compliance value of the credit when used reflects the total volume of oil saved when the credit was earned.

(3) *Below standard fuel economy* means, with respect to a compliance category, that the automobiles manufactured by a manufacturer in that compliance category in a particular model year have lower average fuel economy (calculated in a manner that reflects the incentives for alternative fuel automobiles per 49 U.S.C. 32905) than that manufacturer's fuel economy standard for that compliance category and model year.

(4) *Compliance* means a manufacturer achieves compliance in a particular compliance category when:

(i) The average fuel economy of the vehicles in that category exceed or meet the fuel economy standard for that category; or

(ii) The average fuel economy of the vehicles in that category do not meet the fuel economy standard for that category, but the manufacturer proffers a sufficient number of valid credits, adjusted for total oil savings, to cover the gap between the average fuel economy of the vehicles in that category and the required average fuel economy. A manufacturer achieves compliance for its fleet if the conditions in paragraph (b)(4)(i) of this section or this paragraph (b)(4)(ii) are simultaneously met for all compliance categories.

(5) *Compliance category* means any of three categories of automobiles subject to Federal fuel economy regulations in this chapter. The three compliance categories recognized by 49 U.S.C. 32903(g)(6) are domestically manufactured passenger automobiles, imported passenger automobiles, and non-passenger automobiles.

(6) *Credit holder (or holder)* means a legal person or entity that has valid possession of credits, either because they are a manufacturer who has earned credits by exceeding an applicable fuel economy standard in this chapter, or because they are a designated recipient who has received credits from another holder. Credit holders need not be manufacturers, although all manufacturers may be credit holders.

(7) *Credits (or fuel economy credits)* means an earned or purchased allowance recognizing that the average fuel economy of a particular manufacturer's vehicles within a particular compliance category and model year exceeds that manufacturer's fuel economy standard for that compliance category and model year. One credit is equal to 1/10 of a mile per gallon above the fuel economy standard per one vehicle within a compliance category. Credits are denominated according to model year in which they are earned (vintage), originating manufacturer, and compliance category.

(8) *Expiry date* means the model year after which fuel economy credits may no longer be used to achieve compliance with fuel economy regulations in this chapter. Expiry dates are calculated in terms of model years: For example, if a manufacturer earns credits for model year 2011, these credits may be used for compliance in model years 2008–2016.

(9) *Fleet* means all automobiles manufactured by a manufacturer in a particular model year and are subject to fuel economy standards under parts 531 and 533 of this chapter. For the purposes of this part, a manufacturer's fleet means all domestically

manufactured and imported passenger automobiles and non-passenger automobiles. ''Work trucks'' and medium and heavy trucks are not included in this definition for purposes of this part.

(10) *Originating manufacturer* means the manufacturer that originally earned a particular credit. Each credit earned will be identified with the name of the originating manufacturer.

(11) *Trade* means the movement of credits from the account of a credit holder to the account of another credit holder within the same compliance category in which the credits were originally earned, in accordance with all applicable provisions under this part.

(12) *Transfer* means the movement of credits from one compliance category to another in accordance with all applicable provisions under this part. Subject to the credit transfer limitations of 49 U.S.C. 32903(g)(3), credits can also be transferred across compliance categories and banked or saved in that category to be carried forward or backwards later to address a credit shortfall.

(13) *Vintage* means, with respect to a credit, the model year in which the credit was earned.

§ 536.4 Credits.

(a) *Type and vintage.* In each credit account, credits are identified and distinguished by the manufacturer that earned the credits, the compliance category in which they were earned, and the model year in which they were earned (vintage).

(b) *Application of credits.* All credits earned and applied (*i.e.,* used to resolve an existing credit shortfall) are calculated, per 49 U.S.C. 32903(c), in tenths of a mile per gallon by which the average fuel economy of vehicles in a particular compliance category manufactured by a manufacturer in the model year in which the credits are earned exceeds the applicable average fuel economy standard, multiplied by the number of vehicles sold in that compliance category. However, credits that have been traded between credit holders or transferred between compliance categories are valued for compliance purposes using the adjustment factor specified in paragraph (c) of this section, pursuant to the ''total oil savings'' requirement of 49 U.S.C. 32903(f)(1).

(c) *Adjustment factor.* When traded or transferred fuel economy credits are applied, they are adjusted to ensure fuel oil savings is preserved. For traded credits, the user (or buyer) must multiply the calculated adjustment factor by the number of shortfall credits it plans to offset in order to determine the number of equivalent credits to acquire from the earner (or seller). For transferred credits, the user of credits must multiply the calculated adjustment factor by the number of shortfall credits it plans to offset to determine the number of equivalent credits to transfer from the compliance category holding the available credits. The adjustment factor is calculated according to the following equation in Figure 1 to this paragraph (c):

Figure 1 to § 536.4(c)—Equation for Calculating Adjustment Factor

$$A = \frac{VMT_u \times MPG_{ae} \times MPG_{se}}{VMT_e \times MPG_{au} \times MPG_{su}}$$

Where:

A = Adjustment factor applied to traded and transferred credits. The quotient shall be rounded to 4 decimal places;

VMTe = Lifetime vehicle miles traveled as provided in the following Table 1 to this paragraph (c) for the model year and compliance category in which the credit was earned;

VMTu = Lifetime vehicle miles traveled as provided in the following Table 1 to this paragraph (c) for the model year and compliance category in which the credit is used for compliance;

MPGse = Required fuel economy standard for the originating (earning) manufacturer, compliance category, and model year in which the credit was earned;

MPGae = Actual fuel economy for the originating manufacturer, compliance category, and model year in which the credit was earned;

MPGsu = Required fuel economy standard for the user (buying) manufacturer, compliance category, and model year in which the credit is used for compliance; and

MPGau = Actual fuel economy for the user manufacturer, compliance category, and model year in which the credit is used for compliance.

Table 1 to § 536.4(c)—Lifetime Vehicle Miles Traveled

Category (model years 2017-2031)	Lifetime vehicle miles traveled (VMT)
Passenger Automobiles	195,264
Non-passenger Automobiles	225,865

§ 536.5 Trading infrastructure.

(a) *Accounts.* NHTSA maintains ''accounts'' for each credit holder. The account consists of a balance of credits in each compliance category and vintage held by the holder.

(b) *Who may hold credits.* Every manufacturer subject to fuel economy standards under part 531 or 533 of this chapter is automatically an account holder. If the manufacturer earns credits pursuant to this part, or receives credits from another party, so that the manufacturer's account has a non-zero balance, then the manufacturer is also a credit holder. Any party designated as a recipient of credits by a current credit holder will receive an account from NHTSA and become a credit holder, subject to the following conditions:

(1) A designated recipient must provide name, address, contact information, and a valid taxpayer identification number or Social Security number;

(2) NHTSA does not grant a request to open a new account by any party other than a party designated as a recipient of credits by a credit holder; and

(3) NHTSA maintains accounts with zero balances for a period of time, but reserves the right to close accounts that have had zero balances for more than 1 year.

(c) *Automatic debits and credits of accounts.* (1) To carry credits forward, backward, transfer credits, or trade credits into other credit accounts, a manufacturer or credit holder must submit a credit instruction to NHTSA. A credit instruction must detail and include:

(i) The credit holder(s) involved in the transaction.

(ii) The originating credits described by the amount of the credits, compliance category, and the vintage of the credits.

(iii) The recipient credit account(s) for banking or applying the originating credits described by the compliance category(ies), model year(s), and if applicable the adjusted credit amount(s) and adjustment factor(s).

(iv) For trades, a contract authorizing the trade signed by the manufacturers or credit holders or by managers legally authorized to obligate the sale and purchase of the traded credits.

(2) Upon receipt of a credit instruction from an existing credit holder, NHTSA verifies the presence of sufficient credits in the account(s) of the credit holder(s) involved as applicable and notifies the credit holder(s) that the credits will be debited from and/or credited to the accounts involved, as specified in the credit instruction. NHTSA determines if the credits can be debited or credited based upon the amount of available credits, accurate application of any adjustment factors and the credit requirements prescribed by this part that are applicable at the time the transaction is requested.

(3) After notifying the credit holder(s), all accounts involved are either credited or debited, as appropriate, in line with the credit instruction. Traded credits identified by a specific compliance category are deposited into the recipient's account in that same compliance category and model year. If a recipient of credits as identified in a credit instruction is not a current account holder, NHTSA establishes the credit recipient's account, subject to the conditions described in paragraph (b) of this section, and adds the credits to the newly opened account.

(4) NHTSA will automatically delete unused credits from holders' accounts when those credits reach their expiry date.

(5) Starting January 1, 2022, all parties trading credits must also provide NHTSA the price paid for the credits including a description of any other monetary or non-monetary terms affecting the price of the traded credits, such as any technology exchanged or shared in exchange for the credits, any other non-monetary payment for the credits, or any other agreements related to the trade.

(6) Starting September 1, 2022, manufacturers or credit holders issuing credit instructions or providing credit allocation plans as specified in paragraph (d) of this section, must use and submit the NHTSA Credit Template fillable form (Office of Management and Budget (OMB) Control No. 2127–0019, NHTSA Form 1475). In the case of a trade, manufacturers or credit holders buying traded credits must use the credit transactions template to submit trade instructions to NHTSA. Manufacturers or credit holders selling credits are not required to submit trade instructions. The NHTSA Credit Template must be signed by managers legally authorized to obligate the sale and/or purchase of the traded credits from both parties to the trade. The NHTSA Credit Template signed by both parties to the trade serves as an acknowledgement that the parties have agreed to trade a certain amount of credits, and does not dictate terms, conditions, or other business obligations of the parties.

(7) NHTSA will consider claims that information submitted to the agency under this section is entitled to confidential treatment under 5 U.S.C. 552(b) and under the provisions of part 512 of this chapter if the information is submitted in accordance with the procedures of part 512. The NHTSA Credit Template is available for download on the CAFE Public Information Center website. Manufacturers must submit the cost information to NHTSA in a PDF document along with the Credit Template through the CAFE email, *cafe@dot.gov.* NHTSA reserves the right to request additional information from the parties regarding the terms of the trade.

(d) *Compliance.* (1) NHTSA assesses compliance with fuel economy standards each year, utilizing the certified and reported CAFE data provided by the Environmental Protection Agency (EPA) for enforcement of the CAFE program pursuant to 49 U.S.C. 32904(e). Credit values are calculated based on the CAFE data from EPA. If a particular compliance category within a manufacturer's fleet has above standard fuel economy, NHTSA adds credits to the manufacturer's account for that compliance category and vintage in the appropriate amount by which the manufacturer has exceeded the applicable standard.

(2) If a manufacturer's vehicles in a particular compliance category have below standard fuel economy, NHTSA will provide written notification to the manufacturer that it has failed to meet a particular fleet target standard. The manufacturer will be required to confirm the shortfall and may also submit a plan indicating how it will allocate existing credits or earn, transfer and/or acquire credits to achieve compliance. If the manufacturer submits a plan, the plan must be submitted within 60 days of receiving agency notification.

(3) Credits used to offset shortfalls are subject to the three- and five-year limitations as described in § 536.6.

(4) Transferred credits are subject to the limitations specified by 49 U.S.C. 32903(g)(3) and this part.

(5) The value, when used for compliance, of any credits received via trade or transfer is adjusted, using the adjustment factor described in § 536.4(c), pursuant to 49 U.S.C. 32903(f)(1).

(6) Credit allocation plans received from a manufacturer will be reviewed and approved by NHTSA. Starting in model year 2022, credit holders must use the NHTSA Credit Template (OMB Control No. 2127–0019, NHTSA Forms 1475) to record the credit transactions. The template is a fillable form that has an option for recording and calculating credit transactions for credit allocation plans. The template calculates the required adjustments to the credits. The credit allocation plan and the completed transaction templates must be submitted to NHTSA. NHTSA will approve the credit allocation plan unless it finds that the proposed credits are unavailable or that it is unlikely that the plan will result in the manufacturer earning sufficient credits to offset the subject credit shortfall. If the plan is approved, NHTSA will revise the respective manufacturer's credit account accordingly. If the plan is rejected, NHTSA will notify the respective manufacturer and may request a revised plan.

(e) *Reporting.* (1) NHTSA periodically publishes the names and credit holdings of all credit holders. NHTSA does not publish individual transactions, nor respond to individual requests for updated balances from any party other than the account holder.

(2) NHTSA issues an annual credit status letter to each party that is a credit holder at that time. The letter to a credit holder includes a credit accounting record that identifies the credit status of the credit holder including any activity

(earned, expired, transferred, traded, carry-forward and carry-back credit transactions/allocations) that took place during the identified activity period.

§ 536.6 Credit flexibilities in the CAFE program.

(a) *Carrying back and carrying forward of credits.*

(1) Credits earned in a compliance category may be applied by the manufacturer that earned them to carryback plans for that compliance category approved up to three years prior to the year in which the credits were earned, or may be held or applied for up to five model years after the year in which the credits were earned.

(2) [Reserved]

(b) *Transferring and trading of credits.*

(1) Credits earned in a compliance category in model years 2022 through 2027 may be transferred or traded in accordance with all applicable provisions under this part.

(2) Credits earned in a compliance category in model year 2028 and beyond may be transferred in accordance with all applicable provisions under this part. Credits earned in a compliance category in model year 2028 and beyond may not be traded.

§ 536.7 Treatment of carryback credits.

(a) Carryback credits earned in a compliance category in any model year may be used in carryback plans approved by NHTSA, pursuant to 49 U.S.C. 32903(b), for up to three model years prior to the year in which the credit was earned.

(b) No credits from any source (earned, transferred, and/or traded) will be accepted in lieu of compliance if those credits are not identified as originating within one of the three model years after the model year of the confirmed shortfall.

§ 536.8 Conditions for the trading of credits.

(a) *Trading of credits.* If a credit holder wishes to trade credits to another party, the current credit holder and the receiving party must jointly issue an instruction to NHTSA, identifying the quantity, vintage, compliance category, and originator of the credits to be traded. If the recipient is not a current account holder, the recipient must provide sufficient information for NHTSA to establish an account for the recipient. Once an account has been established or identified for the recipient, NHTSA completes the trade by debiting the transferor's account and crediting the recipient's account. NHTSA will track the quantity, vintage, compliance category, and originator of all credits held or traded by all account holders.

(b) *Using traded credits to comply with fuel economy standards.* For credits earned in model years 2022 through 2027, and used to satisfy compliance obligations for model years 2019 through 2027 in accordance with all applicable provisions under this part:

(1) Manufacturers may use credits originally earned by another manufacturer in a particular compliance category to satisfy compliance obligations within the same compliance category.

(2) Once a manufacturer acquires by trade credits originally earned by another manufacturer in a particular compliance category, the manufacturer may transfer the credits to satisfy its compliance obligations in a different compliance category, but only to the extent that the CAFE increase attributable to the transferred credits does not exceed the limits in 49 U.S.C. 32903(g)(3). For any compliance category, the sum of a manufacturer's transferred credits earned by that manufacturer and transferred credits obtained by that manufacturer through trade must not exceed that limit.

(c) *Changes in corporate ownership and control.* Manufacturers must inform NHTSA of corporate relationship changes to ensure that credit accounts are identified correctly and credits are assigned and allocated properly.

(1) In general, if two manufacturers merge in any way, they must inform NHTSA how they plan to merge their credit accounts. NHTSA will subsequently assess corporate fuel economy and compliance status of the merged fleet instead of the original separate fleets.

(2) If a manufacturer divides or divests itself of a portion of its automobile manufacturing business, it must inform NHTSA how it plans to divide the manufacturer's credit holdings into two or more accounts. NHTSA will subsequently distribute holdings as directed by the manufacturer, subject to provision for reasonably anticipated compliance obligations.

(3) If a manufacturer is a successor to another manufacturer's business, it must inform NHTSA how it plans to allocate credits and resolve liabilities per part 534 of this chapter.

(d) *No short or forward sales.* NHTSA will not honor any instructions to trade or transfer more credits than are currently held in any account. NHTSA will not honor instructions to trade or transfer credits from any future vintage (*i.e.,* credits not yet earned). NHTSA will not participate in or facilitate contingent trades.

(e) *Cancellation of credits.* A credit holder may instruct NHTSA to cancel its currently held credits, specifying the originating manufacturer, vintage, and compliance category of the credits to be cancelled. These credits will be permanently null and void; NHTSA will remove the specific credits from the credit holder's account and will not reissue them to any other party.

(f) *Error or fraud in earning credits.* If NHTSA determines that a manufacturer has been credited, through error or fraud, with earning credits, NHTSA will cancel those credits if possible. If the manufacturer credited with having earned those credits has already traded them when the error or fraud is discovered, NHTSA will hold the receiving manufacturer responsible for returning the same or equivalent credits to NHTSA for cancellation.

(g) *Error or fraud in trading.* In general, all trades are final and irrevocable once executed, and may only be reversed by a new, mutually agreed transaction. If NHTSA executes an erroneous instruction to trade credits from one holder to another through error or fraud, NHTSA will reverse the transaction if possible. If those credits have been traded away, the recipient holder is responsible for obtaining the same or equivalent credits for return to the previous holder.

§ 536.9 Use of credits with regard to the domestically manufactured passenger automobile minimum standard.

(a) Each manufacturer is responsible for compliance with both the minimum standard and the attribute-based standard set out in the chapter.

(b) In any particular model year, the domestically manufactured passenger automobile compliance category credit excess or shortfall is determined by comparing the actual CAFE value against either the required standard value or the minimum standard value, whichever is larger.

(c) Transferred or traded credits may not be used, pursuant to 49 U.S.C. 32903(g)(4) and (f)(2), to meet the domestically manufactured passenger automobile minimum standard specified in 49 U.S.C. 32902(b)(4) and in 49 CFR 531.5(b).

(d) If a manufacturer's average fuel economy level for domestically manufactured passenger automobiles is lower than the attribute-based standard, but higher than the minimum standard, then the manufacturer may achieve compliance with the attribute-based standard by applying credits.

(e) If a manufacturer's average fuel economy level for domestically manufactured passenger automobiles is lower than the minimum standard, then the difference between the minimum standard and the manufacturer's actual fuel economy level may only be relieved by the use of credits earned by that manufacturer within the domestic passenger automobile compliance category that have not been transferred or traded. If the manufacturer does not have available earned credits to offset a credit shortage below the minimum standard, then the manufacturer can submit a carry-back plan that indicates sufficient future credits will be earned in its domestic passenger automobile compliance category.

§ 536.10 Treatment of dual-fuel and alternative fuel vehicles—consistency with 49 CFR part 538.

(a) The fuel economy of alternative fueled and dual fueled automobiles is calculated pursuant to EPA's regulations at 40 CFR 600.510–12 and included as part of EPA's calculation of a manufacturer's fleet average fuel economy for the model year and compliance category to which the alternative fueled or dual fueled automobile belongs, in accordance with 49 U.S.C. 32905 and limited by 49 U.S.C. 32906.

(b) If a manufacturer's calculated fuel economy for a particular compliance category, including any alternative fueled and dual fueled automobiles, is higher or lower than the applicable fuel economy standard, manufacturers will earn credits or must apply credits equal to the difference between the calculated fuel economy level in that compliance category and the applicable standard. Credits earned are the same as any other credits, and may be held, transferred, or traded by the manufacturer subject to the limitations of the statute and this part.

■ 5. Revise part 537 to read as follows:

PART 537—AUTOMOTIVE FUEL ECONOMY REPORTS

Sec.

Authority: 49 U.S.C. 32907; delegation of authority at 49 CFR 1.95.

§ 537.1 Scope.

This part establishes requirements for automobile manufacturers to submit reports to the National Highway Traffic Safety Administration regarding their efforts to improve automotive fuel economy.

§ 537.2 Purpose.

The purpose of this part is to obtain information to aid the National Highway Traffic Safety Administration in evaluating automobile manufacturers' plans for complying with average fuel economy standards and in preparing an annual review of the average fuel economy standards.

§ 537.3 Applicability.

This part applies to automobile manufacturers, except for manufacturers subject to an alternate fuel economy standard under 49 U.S.C. 32902(d).

§ 537.4 Definitions.

(a) *Statutory terms.* (1) The terms *average fuel economy standard, fuel, manufacture,* and *model year* are used as defined in 49 U.S.C. 32901.

(2) The term *manufacturer* is used as defined in 49 U.S.C. 32901 and in accordance with part 529 of this chapter.

(3) The terms *average fuel economy, fuel economy,* and *model type* are used as defined in subpart A of 40 CFR part 600.

(4) The terms *automobile, automobile capable of off-highway operation,* and *passenger automobile* are used as defined in 49 U.S.C. 32901 and in accordance with the determinations in part 523 of this chapter.

(b) *Other terms.* (1) The term *loaded vehicle weight* is used as defined in subpart A of 40 CFR part 86.

(2) The terms *axle ratio, base level, body style, car line, combined fuel economy, engine code, equivalent test weight, gross vehicle weight, inertia weight, transmission class,* and *vehicle configuration* are used as defined in subpart A of 40 CFR part 600.

(3) The terms *approach angle, axle clearance, breakover angle, cargo carrying volume, departure angle, passenger carrying volume, running clearance,* and *temporary living quarters* are used as defined in part 523 of this chapter.

(4) The term *incomplete automobile manufacturer* is used as defined in part 529 of this chapter.

(5) As used in this part, unless otherwise required by the context:

(i) *Administrator* means the Administrator of the National Highway Traffic Safety Administration or the Administrator's delegate.

(ii) *Current model year* means:

(A) In the case of a pre-model year report, the full model year immediately following the period during which that report is required by § 537.5(b) to be submitted.

(B) In the case of a mid-model year report, the model year during which that report is required by § 537.5(b) to be submitted.

(iii) *Average* means a production-weighted harmonic average.

(iv) *Total drive ratio* means the ratio of an automobile's engine rotational speed (in revolutions per minute) to the automobile's forward speed (in miles per hour).

§ 537.5 General requirements for reports.

(a) For each current model year, each manufacturer shall submit a pre-model year report, a mid-model year report, and, as required by § 537.8, supplementary reports.

(b)(1) The pre-model year report required by this part for each current model year must be submitted during the month of December (*e.g.,* the pre-model year report for the 1983 model year must be submitted during December 1982).

(2) The mid-model year report required by this part for each current model year must be submitted during the month of July (*e.g.,* the mid-model year report for the 1983 model year must be submitted during July 1983).

(3) Each supplementary report must be submitted in accordance with § 537.8(c).

(c) Each report required by this part must:

(1) Identify the report as a pre-model year report, mid-model year report, or supplementary report as appropriate;

(2) Identify the manufacturer submitting the report;

(3) State the full name, title, and address of the official responsible for preparing the report;

(4) Be submitted electronically to *cafe@dot.gov.* For each report, manufacturers should submit a confidential version and a non-confidential (*i.e.,* redacted) version. The confidential report should be accompanied by a request letter that contains supporting information, pursuant to § 512.8 of this chapter. Your request must also include a certificate, pursuant to § 512.4(b) of this chapter and part 512, appendix A, of this chapter. The word ''CONFIDENTIAL'' must appear on the top of each page containing information claimed to be confidential. If an entire page is claimed to be confidential, the submitter must

indicate clearly that the entire page is claimed to be confidential. If the information for which confidentiality is being requested is contained within a page, the submitter shall enclose each item of information that is claimed to be confidential within brackets: ''[ ].'' Confidential portions of electronic files submitted in other than their original format must be marked ''Confidential Business Information'' or ''Entire Page Confidential Business Information'' at the top of each page. If only a portion of a page is claimed to be confidential, that portion shall be designated by brackets. Files submitted in their original format that cannot be marked as described above must, to the extent practicable, identify confidential information by alternative markings using existing attributes within the file or means that are accessible through use of the file's associated program. A representative from NHTSA's Office of Chief Counsel, as designated by NHTSA, should be copied on any submissions with confidential business information;

(5) Identify the current model year;

(6) Be written in the English language; and

(7) (i) Specify any part of the information or data in the report that the manufacturer believes should be withheld from public disclosure as trade secret or other confidential business information.

(ii) With respect to each item of information or data requested by the manufacturer to be withheld under 5 U.S.C. 552(b)(4) and 15 U.S.C. 2005(d)(1), the manufacturer shall:

(A) Show that the item is within the scope of sections 552(b)(4) and 2005(d)(1);

(B) Show that disclosure of the item would result in significant competitive damage;

(C) Specify the period during which the item must be withheld to avoid that damage; and

(D) Show that earlier disclosure would result in that damage.

(d) Beginning with model year 2023, each manufacturer shall generate reports required by this part using the NHTSA CAFE Projections Reporting Template (Office of Management and Budget (OMB) Control No. 2127–0019, NHTSA Form 1474). The template is a fillable form.

(1) Manufacturers must select the option to identify the report as a pre-model year report, mid-model year report, or supplementary report as appropriate.

(2) Manufacturers must complete all required information for the manufacturer and for all vehicles produced for the current model year required to comply with corporate average fuel economy (CAFE) standards. The manufacturer must identify the manufacturer submitting the report, including the full name, title, and address of the official responsible for preparing the report and a point of contact to answer questions concerning the report.

(3) Manufacturers must use the template to generate confidential and non-confidential reports for each of the compliance fleets (*i.e.,* domestic passenger automobile, imported passenger automobile, non-passenger automobile) produced by the manufacturer for the current model year. Manufacturers must submit a request for confidentiality in accordance with part 512 of this chapter to withhold projected production sales volume estimates from public disclosure. If the request is granted, NHTSA will withhold the projected production sales volume estimates from public disclosure until all the vehicles produced by the manufacturer have been made available for sale (usually 1 year after the current model year).

(4) Manufacturers must submit confidential reports and requests for confidentiality to NHTSA on CD–ROM in accordance with § 537.12. Email copies of non-confidential (*i.e.,* redacted) reports to NHTSA's secure email address: *cafe@dot.gov.* Requests for confidentiality must be submitted in a PDF or MS Word format. Submit 2 copies of the CD–ROM to: Administrator, National Highway Traffic Administration, 1200 New Jersey Avenue SE, Washington, DC 20590, and submit emailed reports electronically to the following secure email address: *cafe@dot.gov.*

(5) Manufacturers can withhold information on projected production sales volumes under 5 U.S.C. 552(b)(4) and 15 U.S.C. 2005(d)(1). In accordance, the manufacturer must:

(i) Show that the item is within the scope of sections 552(b)(4) and 2005(d)(1);

(ii) Show that disclosure of the item would result in significant competitive damage;

(iii) Specify the period during which the item must be withheld to avoid that damage; and

(iv) Show that earlier disclosure would result in that damage.

(e) Each report required by this part must be based upon all information and data available to the manufacturer 30 days before the report is submitted to the Administrator.

§ 537.6 General content of reports.

(a) *Pre-model year and mid-model year reports.* Except as provided in paragraph (c) of this section, each pre-model year report and the mid-model year report for each model year must contain the information required by § 537.7(a).

(b) *Supplementary report.* Except as provided in paragraph (c) of this section, each supplementary report for each model year must contain the information required by § 537.7(a)(1) and (2), as appropriate for the vehicle fleets produced by the manufacturer, in accordance with § 537.8(b)(1) through (4) as appropriate.

(c) *Exceptions.* The pre-model year report, mid-model year report, and supplementary report(s) submitted by an incomplete automobile manufacturer for any model year are not required to contain the information specified in § 537.7(c)(4)(xv) through (xviii) and (c)(5). The information provided by the incomplete automobile manufacturer under § 537.7(c) shall be according to base level instead of model type or carline.

§ 537.7 Pre-model year and mid-model year reports.

(a) *Report submission requirements.* (1) Manufacturers must provide a report with the information required by paragraphs (b) and (c) of this section for each domestic and imported passenger automobile fleet, as specified in part 531 of this chapter, for the current model year.

(2) Manufacturers must provide a report with the information required by paragraphs (b) and (c) of this section for each non-passenger automobile fleet, as specified in part 533 of this chapter, for the current model year.

(3) For model year 2023 and later, for passenger automobiles specified in part 531 and non-passenger automobiles specified in part 533 of this chapter, manufacturers must provide the information for pre-model and mid-model year reports in accordance with the NHTSA CAFE Projections Reporting Template (OMB Control No. 2127–0019, NHTSA Form 1474). The required reporting template can be downloaded from NHTSA's website.

(i) Manufacturers are only required to provide the actual information on vehicles and technologies in production at the time the pre- and mid-model year reports are required. Otherwise, manufacturers must provide reasonable estimates or updated estimates where possible for pre-and mid-model year reports.

(ii) Manufacturers should attempt not to omit data, which should only be the

done for products pending production and with unknown information at the time CAFE reports are prepared.

(b) *Projected average and required fuel economy.*

(1) Manufacturers must state the projected average fuel economy for the manufacturer's automobiles determined in accordance with § 537.9 and based upon the fuel economy values and projected sales figures provided under paragraph (c)(2) of this section.

(2) Manufacturers must state the projected final average fuel economy that the manufacturer anticipates having if changes implemented during the model year will cause that average to be different from the average fuel economy projected under paragraph (b)(1) of this section.

(3) Manufacturers must state the projected required fuel economy for the manufacturer's passenger automobiles and non-passenger automobiles determined in accordance with §§ 531.5(a) and 533.5 of this chapter and based upon the projected sales figures provided under paragraph (c)(2) of this section. For each unique model type and footprint combination of the manufacturer's automobiles, the manufacturer must provide the information specified in paragraphs (b)(3)(i) and (ii) of this section in tabular form. The manufacturer must list the model types in order of increasing average inertia weight from top to bottom down the left side of the table and list the information categories in the order specified in paragraphs (b)(3)(i) and (ii) of this section from left to right across the top of the table. Other formats, such as those accepted by the Environmental Protection Agency (EPA), which contain all the information in a readily identifiable format, are also acceptable. For model year 2023 and later, for each unique model type and footprint combination of the manufacturer's automobiles, the manufacturer must provide the information specified in paragraphs (b)(3)(i) and (ii) of this section in accordance with the CAFE Projections Reporting Template (OMB Control No. 2127–0019, NHTSA Form 1474).

(i) In the case of passenger automobiles, manufacturers must report the following:

(A) Beginning model year 2013, base tire as defined in § 523.2 of this chapter;

(B) Beginning model year 2013, front axle, rear axle, and average track width as defined in § 523.2 of this chapter;

(C) Beginning model year 2013, wheelbase as defined in § 523.2 of this chapter;

(D) Beginning model year 2013, footprint as defined in § 523.2 of this chapter; and

(E) The fuel economy target value for each unique model type and footprint entry listed in accordance with the equation provided in part 531 of this chapter.

(ii) In the case of non-passenger automobiles, manufacturers must report the following:

(A) Beginning model year 2013, base tire as defined in § 523.2 of this chapter;

(B) Beginning model year 2013, front axle, rear axle, and average track width as defined in § 523.2 of this chapter;

(C) Beginning model year 2013, wheelbase as defined in § 523.2 of this chapter;

(D) Beginning model year 2013, footprint as defined in § 523.2 of this chapter; and

(E) The fuel economy target value for each unique model type and footprint entry listed in accordance with the equation provided in part 533 of this chapter.

(4) Manufacturers must state the projected final required fuel economy that the manufacturer anticipates having if changes implemented during the model year will cause the targets to be different from the target fuel economy projected under paragraph (b)(3) of this section.

(5) Manufacturers must state whether the manufacturer believes that the projections it provides under paragraphs (b)(2) and (4) of this section, or if it does not provide an average or target under paragraphs (b)(2) and (4), the projections it provides under paragraphs (b)(1) and (3) of this section, sufficiently represent the manufacturer's average and target fuel economy for the current model year for purposes of the Act. In the case of a manufacturer that believes that the projections are not sufficiently representative for the purpose of determining the projected average fuel economy for the manufacturer's automobiles, the manufacturers must state the specific nature of any reason for the insufficiency and the specific additional testing or derivation of fuel economy values by analytical methods believed by the manufacturer necessary to eliminate the insufficiency and any plans of the manufacturer to undertake that testing or derivation voluntarily and submit the resulting data to EPA under 40 CFR 600.509–12.

(c) *Model type and configuration fuel economy and technical information.*

(1) For each model type of the manufacturer's automobiles, the manufacturers must provide the information specified in paragraph (c)(2) of this section in tabular form. List the model types in order of increasing average inertia weight from top to bottom down the left side of the table and list the information categories in the order specified in paragraph (c)(2) of this section from left to right across the top of the table. For model year 2023 and later, CAFE reports required by this part shall for each model type of the manufacturer's automobiles provide the information specified in paragraphs (c)(2) and (4) of this section using the NHTSA CAFE Projections Reporting Template (OMB Control No. 2127–0019, NHTSA Form 1474) and list the model types in order of increasing average inertia weight from top to bottom.

(2) (i) Combined fuel economy; and

(ii) Projected sales for the current model year and total sales of all model types.

(3) For pre-model year reports not subject to § 537.5(d) of this chapter, for each vehicle configuration whose fuel economy was used to calculate the fuel economy values for a model type under paragraph (c)(2) of this section, manufacturers must provide the information specified in paragraph (c)(4) of this section.

(4) (i) Loaded vehicle weight;

(ii) Equivalent test weight;

(iii) Engine displacement, liters;

(iv) Society of Automotive Engineers (SAE) net rated power, kilowatts;

(v) SAE net horsepower;

(vi) Engine code;

(vii) Fuel system (number of carburetor barrels or, if fuel injection is used, so indicate);

(viii) Emission control system;

(ix) Transmission class;

(x) Number of forward speeds;

(xi) Existence of overdrive (indicate yes or no);

(xii) Total drive ratio (N/V);

(xiii) Axle ratio;

(xiv) Combined fuel economy;

(xv) Projected sales for the current model year;

(xvi) (A) In the case of passenger automobiles:

(*1*) Interior volume index, determined in accordance with subpart D of 40 CFR part 600; and

(*2*) Body style;

(B) In the case of non-passenger automobiles:

(*1*) All functional ability characteristic metrics described in (c)(5)(i) of this subpart; and

(*2*) All off-highway characteristic metrics described in (c)(5)(ii) of this subpart;

(xvii) Frontal area;

(xviii) Road load power at 50 miles per hour, if determined by the manufacturer for purposes other than compliance with this part to differ from

the road load setting prescribed in 40 CFR 86.177–11(d); and

(xix) Optional equipment that the manufacturer is required under 40 CFR parts 86 and 600 to have actually installed on the vehicle configuration, or the weight of which must be included in the curb weight computation for the vehicle configuration, for fuel economy testing purposes.

(5) For each model type of automobile classified as a non-passenger automobile under part 523 of this chapter, manufacturers must provide the following for each unique trim or configuration of the model type that alters any characteristic or feature described in the sections contained in paragraphs (c)(5)(i) and (ii) of this section:

(i) For an automobile not manufactured primarily for transporting 10 or fewer passengers, determined by the presence of at least one chief non-passenger characteristic in accordance with § 523.5(a) of this chapter, provide:

(A) A yes or no confirmation for whether the number of designated seating positions is greater than ten. If yes, provide the number of designated seating positions;

(B) A yes or no confirmation for the presence of temporary living accommodations, such as a bed, sink, stove, refrigerator, or toilet. If yes, list the provided accommodations;

(C) A yes or no confirmation for the ability to transport property on an open bed. If yes, provide bed width and length in inches, measured to the nearest tenth of inch;

(D) Maximum passenger carrying volume and minimum cargo carrying volume, as defined in § 523.2 of this chapter, with all seats, as sold to the first retail purchaser, installed and in their passenger-carrying position; and

(E) For automobiles manufactured in model year 2022 through model year 2027:

(*1*) A yes or no confirmation for the presence of three or more rows of designated seating positions;

(*2*) A yes or no confirmation that the 2nd and 3rd row seating can be removed, stowed, or folded as described in § 523.5(a)(5) of this chapter;

(3) A yes or no confirmation that the 2nd and 3rd rows create a flat, level surface when in their cargo-carrying configuration as described in § 523.5(a)(5) of this chapter.

(F) For automobiles manufactured in 2028 and beyond, curb weight, gross vehicle weight rating (GVWR), and gross combined weight rating (GCWR) for the calculation of the light duty work factor (LDWF).

(ii) For an automobile capable of off-highway operation, provide the features in paragraphs (c)(5)(ii)(A) through (D) of this section in accordance with § 523.5(b) of this chapter:

(A) A yes or no confirmation for the presence of 4-wheel drive;

(B) The gross vehicle weight rating (GVWR) in pounds;

(C) Measured in accordance with § 523.5(b)(2), provide the value of:

(*1*) Approach angle rounded to the nearest 0.1 degrees;

(*2*) Breakover angle rounded to the nearest 0.1 degrees;

(*3*) Departure angle rounded to the nearest 0.1 degrees; and

(*4*) Running clearance rounded to the nearest 0.1 centimeters.

(D) For automobiles manufactured through model year 2027, measured in accordance with § 523.5(b)(2), provide the value of:

(*1*) Front axle clearance rounded to the nearest 0.1 centimeters; and

(*2*) Rear axle clearance rounded to the nearest 0.1 centimeters.

(6) Manufacturers must determine the fuel economy values provided under paragraphs (c)(2) and (4) of this section in accordance with § 537.9.

(7) For the model years specified in paragraphs (c)(7)(i) through (iii) of this section, manufacturers must identify any air-conditioning (AC), off-cycle and full-size pick-up truck technologies used each model year to calculate the average fuel economy specified in 40 CFR 600.510–12.

(i) For automobiles manufactured in years in which a manufacturer may generate fuel consumption improvement values pursuant to 40 CFR part 600, each manufacturer must provide a list of each air conditioning (AC) efficiency improvement technology utilized in its fleet(s) of vehicles for each model year for which the manufacturer qualifies for fuel consumption improvement values . For each technology identify vehicles by make and model types that have the technology, which compliance category those vehicles belong to, and the number of vehicles for each model equipped with the technology. For each compliance category (domestic passenger automobile, imported passenger automobile, and non-passenger automobile), report the AC fuel consumption improvement value in gallons/mile in accordance with the applicable equation specified in 40 CFR part 600.

(ii) For automobiles manufactured in model years in which a manufacturer may generate fuel consumption improvement values pursuant to 40 CFR part 600, each manufacturer must provide a list of off-cycle efficiency improvement technologies utilized in its fleet(s) of vehicles for each model year that is pending or approved by EPA for which the manufacturer qualifies for fuel consumption improvement values. For each technology, manufacturers must identify vehicles by make and model types that have the technology, which compliance category those vehicles belong to, the number of vehicles for each model equipped with the technology, and the associated off-cycle credits (grams/mile) available for each technology. For each compliance category (domestic passenger automobile, imported passenger automobile, and non-passenger automobile), manufacturers must calculate the fleet off-cycle fuel consumption improvement value in gallons/mile in accordance with the applicable equation specified in 40 CFR part 600.

(iii) For model years up to 2024, each manufacturer must provide a list of full-size pickup trucks in its fleet that meet the mild and strong hybrid vehicle definitions. For each mild and strong hybrid type, manufacturers must identify vehicles by make and model types that have the technology, the number of vehicles produced for each model equipped with the technology, the total number of full-size pickup trucks produced with and without the technology, the calculated percentage of hybrid vehicles relative to the total number of vehicles produced, and the associated full-size pickup truck credits (grams/mile) available for each technology. For the non-passenger automobile compliance category, manufacturers must calculate the fleet pickup truck fuel consumption improvement value in gallons/mile in accordance with the applicable equation specified in 40 CFR part 600.

§ 537.8 Supplementary reports.

(a)(1) Except as provided in paragraph (d) of this section, each manufacturer whose most recently submitted mid-model year report contained an average fuel economy projection under § 537.7(b)(2) or, if no average fuel economy was projected under that section, under § 537.7(b)(1) that was not less than the applicable average fuel economy standard in this chapter and who now projects an average fuel economy that is less than the applicable standard in this chapter shall file a supplementary report containing the information specified in paragraph (b)(1) of this section.

(2) Except as provided in paragraph (d) of this section, each manufacturer that determines that its average fuel economy for the current model year as

projected under § 537.7(b)(2) or, if no average fuel economy was projected under § 537.7(b)(2), as projected under § 537.7(b)(1), is less representative than the manufacturer previously reported it to be under § 537.7(b)(3), this section, or both, shall file a supplementary report containing the information specified in paragraph (b)(2) of this section.

(3) For model years through 2022, each manufacturer whose mid-model year report omits any of the information specified in § 537.7(b) or (c) shall file a supplementary report containing the information specified in paragraph (b)(3) of this section.

(4) Starting model year 2023, each manufacturer whose mid-model year report omits any of the information shall resubmit the information with other information required in accordance with the NHTSA CAFE Projections Reporting Template (OMB Control No. 2127–0019, NHTSA Form 1474).

(b) (1) The supplementary report required by paragraph (a)(1) of this section must contain:

(i) Such revisions of and additions to the information previously submitted by the manufacturer under this part regarding the automobiles whose projected average fuel economy has decreased as specified in paragraph (a)(1) of this section as are necessary—

(A) To reflect the change and its cause; and

(B) To indicate a new projected average fuel economy based upon these additional measures.

(ii) An explanation of the cause of the decrease in average fuel economy that led to the manufacturer's having to submit the supplementary report required by paragraph (a)(1) of this section.

(2) The supplementary report required by paragraph (a)(2) of this section must contain:

(i) A statement of the specific nature of and reason for the insufficiency in the representativeness of the projected average fuel economy;

(ii) A statement of specific additional testing or derivation of fuel economy values by analytical methods believed by the manufacturer necessary to eliminate the insufficiency; and

(iii) A description of any plans of the manufacturer to undertake that testing or derivation voluntarily and submit the resulting data to the Environmental Protection Agency under 40 CFR 600.509–12.

(3) The supplementary report required by paragraph (a)(3) of this section must contain:

(i) All of the information omitted from the mid-model year report under § 537.6(c); and

(ii) Such revisions of and additions to the information submitted by the manufacturer in its mid-model year report regarding the automobiles produced during the current model year as are necessary to reflect the information provided under paragraph (b)(3)(i) of this section.

(4) The supplementary report required by paragraph (a)(4) of this section must contain:

(i) All information omitted from the mid-model year reports under § 537.6(c); and

(ii) Such revisions of and additions to the information submitted by the manufacturer in its pre-model or mid-model year reports regarding the automobiles produced during the current model year as are necessary to reflect the information provided under paragraph (b)(4)(i) of this section.

(c) (1) Each report required by paragraph (a)(1), (2), (3), or (4) of this section must be submitted in accordance with § 537.5(c) not more than 45 days after the date on which the manufacturer determined, or could have determined with reasonable diligence, that the report was required.

(2) [Reserved]

(d) A supplementary report is not required to be submitted by the manufacturer under paragraph (a)(1) or (2) of this section:

(1) With respect to information submitted under this part before the most recent mid-model year report submitted by the manufacturer under this part; or

(2) When the date specified in paragraph (c) of this section occurs after the day by which the pre-model year report for the model year immediately following the current model year must be submitted by the manufacturer under this part.

(e) For model years 2008, 2009, and 2010, each manufacturer of non-passenger automobiles, as that term is defined in § 523.5 of this chapter, shall submit a report, not later than 45 days following the end of the model year, indicating whether the manufacturer is opting to comply with § 533.5(f) or (g) of this chapter.

§ 537.9 Determination of fuel economy values and average fuel economy.

(a) *Vehicle subconfiguration fuel economy values.* (1) For each vehicle subconfiguration for which a fuel economy value is required under paragraph (c) of this section and has been determined and approved under 40 CFR part 600, the manufacturer shall submit that fuel economy value.

(2) For each vehicle subconfiguration specified in paragraph (a)(1) of this section for which a fuel economy value approved under 40 CFR part 600, does not exist, but for which a fuel economy value determined under 40 CFR part 600 exists, the manufacturer shall submit that fuel economy value.

(3) For each vehicle subconfiguration specified in paragraph (a)(1) of this section for which a fuel economy value has been neither determined nor approved under 40 CFR part 600, the manufacturer shall submit a fuel economy value based on tests or analyses comparable to those prescribed or permitted under 40 CFR part 600 and a description of the test procedures or analytical methods used.

(4) For each vehicle configuration for which a fuel economy value is required under paragraph (c) of this section and has been determined and approved under 40 CFR part 600, the manufacturer shall submit that fuel economy value.

(b) *Base level and model type fuel economy values.* For each base level and model type, the manufacturer shall submit a fuel economy value based on the values submitted under paragraph (a) of this section and calculated in the same manner as base level and model type fuel economy values are calculated for use under subpart F of 40 CFR part 600.

(c) *Average fuel economy.* Average fuel economy must be based upon fuel economy values calculated under paragraph (b) of this section for each model type and must be calculated in accordance with subpart F of 40 CFR part 600, except that fuel economy values for running changes and for new base levels are required only for those changes made or base levels added before the average fuel economy is required to be submitted under this part.

§ 537.10 Incorporation by reference by manufacturers.

(a) A manufacturer may incorporate by reference in a report required by this part any document other than a report, petition, or application, or portion thereof submitted to any Federal department or agency more than two model years before the current model year.

(b) A manufacturer that incorporates by reference a document not previously submitted to the National Highway Traffic Safety Administration shall append that document to the report.

(c) A manufacturer that incorporates by reference a document shall clearly identify the document and, in the case of a document previously submitted to the National Highway Traffic Safety Administration, indicate the date on

which and the person by whom the document was submitted to this agency.

§ 537.11 Public inspection of information.

Except as provided in § 537.12, any person may inspect the information and data submitted by a manufacturer under this part in the docket section of the National Highway Traffic Safety Administration. Any person may obtain copies of the information available for inspection under this section in accordance with the regulations of the Secretary of Transportation in part 7 of this title.

§ 537.12 Confidential information.

(a) *Treatment of confidential information.* Information made available under § 537.11 for public inspection does not include information for which confidentiality is requested under § 537.5(c)(7), is granted in accordance with section 505 of the Act and 5 U.S.C. 552(b) and is not subsequently released under paragraph (c) of this section in accordance with section 505 of the Act.

(b) *Denial of confidential treatment.* When the Administrator denies a manufacturer's request under § 537.5(c)(7) for confidential treatment of information, the Administrator gives the manufacturer written notice of the denial and reasons for it. Public disclosure of the information is not made until after the 10-day period immediately following the giving of the notice.

(c) *Release of confidential information.* After giving written notice to a manufacturer and allowing 10 days, when feasible, for the manufacturer to respond, the Administrator may make available for public inspection any information submitted under this part that is relevant to a proceeding under the Act, including information that was granted confidential treatment by the Administrator pursuant to a request by the manufacturer under § 537.5(c)(7).

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Jonathan Morrison,

Administrator.

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