Consumers Union
NONPROFIT PUBLISHER OF CONSUMER REPORTS

Docket Management Facility
US Department of Transportation
400 Seventh Street, SW
Nassif Building, Room PL-401
Washington, DC 20590-001
Via: http://dms.dot.gov

Comments of Consumers Union of the U.S. Inc.
to the
Department of Transportation
National Highway Traffic Safety Administration
In response to Advance Notice of Propose Rulemaking
49CFR Part 533
Docket No. 2003-16128
RIN 2127-AJ17
on
Reforming the Automobile Fuel Economy Standards Program

Introduction

Consumers Union[1], publisher of *Consumer Reports* (CR), has long advocated that all passenger vehicles, including light trucks intended primarily for transporting passengers, should fall into a single category to meet common fuel economy goals. When the National Highway Traffic Safety Administration's (NHTSA) Corporate Average Fuel Economy (CAFE) regulations first took effect in 1977, SUVs, minivans, and pickup trucks were not the popular family vehicles they are today. In 1975, light trucks constituted only 20% of the vehicle market and were primarily used as work vehicles. Today they comprise nearly 50% of the new vehicle market and are most primarily used primarily as passenger cars.

In the late 1970s and early 1980s, it might have made sense for these vehicles to be placed in a separate category. But in the ensuing 27 years, the car/light truck dichotomy

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that exists under CAFE no longer makes practical sense. Unfortunately, the CAFE program has failed to keep pace with changing consumer trends. Indeed, we believe that CAFE's structure – with vehicles classified as "light trucks" having to meet a far lower average fuel efficiency standard –20.7 miles per gallon (mpg) rather than the average fuel efficiency standard for cars, at 27.5 mpg -- has in fact fostered and promoted the manufacture and sale of large, fuel-inefficient vehicles such as SUVs.

Consequences of Failing to Increase CAFE standards

The failure to develop effective fuel efficiency standards is a major contributor to our nation's dependence on foreign oil. In an article titled, "Does America have an energy strategy?" the July 1996 issue of *Consumer Reports* noted, "Instead of developing a national strategy to conserve energy, the US has been backsliding. Americans today are driving more than ever –some 8,000 miles per driver in 1995, one-third more than in 1973. And more drivers are buying sport-utility vehicles (SUVs) and light trucks, which get notably poor gas mileage. After rising steadily since the mid-1970s, the average fuel efficiency of passenger vehicles on America's roads peaked at over 21 miles per gallon in 1991, and has edged down every year since." And while *Consumer Reports* tests, evaluates, and rates sport utility vehicles, (SUVs), we routinely advise consumers to think carefully before buying one of the larger models. In November 2002, in an article titled "Sizing up large SUVs," we said,

> There are good reasons not to buy a large, full-sized sport utility vehicle: They are gas gluttons, create excessive pollution, handle ponderously, and as a class SUVs tend to roll over more easily than passenger cars. Full-sized SUVs can be hard to park and difficult to climb into and out of. And higher SUVs inflict excessive damage to cars in collisions. For most people, there are better choices.

Moreover, there are numerous concerns beyond our pocketbooks for Americans to seek to reduce our consumption of fuel.

- The United States has only 3% of the world's oil reserves, but we use 25% of the world's supply of oil.
- Two-thirds of all oil consumed in the United States today is used to power automobiles.
- The world's leading climate scientists have warned that there is now 30 percent more carbon dioxide—the primary global-warming gas—in the atmosphere than a century ago. The burning of fossil fuels is the primary source of this CO2 pollution and CO2 emissions are directly related to fuel economy. Over the same period of time, the average surface temperature of the earth has risen more than 1 degree Fahrenheit.
- The U.S. presently emits more greenhouse gases per person than any other country.
- Cars, sport-utility vehicles and other light trucks emit 20 percent of the nation's CO2 pollution.

- The United States continues to fall behind its industrialized allies in controlling carbon emissions, according to a 2002 European Union report. EU member countries' carbon emissions fell from 1990 to 2000, while newly available data from the Energy Information Administration of the U.S. Department of Energy showed U.S. emissions rising by 14 percent. Motor vehicles are a major contributor to these carbon emissions.
- More frequent and more severe heat waves will be an early effect of global warming, according to the world's leading authority on global warming, the Intergovernmental Panel on Climate Change, a United Nations-sponsored organization made up of 2,500 scientists from around the world. Events such as the deadly stretch of hot days that killed 669 people in the Midwest during the summer of 1995 and 250 in the Eastern United States in July 1999 are likely to become more common. Scientists are already finding that the frequency and intensity of extreme weather events are increasing.

But there are ready solutions to many of these problems. According to the American Council for an Energy-Efficient Economy, (ACEEE), "If new car and light truck buyers chose the most efficient vehicles in each size class, we would slash the 2003 fleet's gasoline use by 20 percent, reducing gasoline costs by $3.7 billion and saving the average buyer $220 a year. And, of course, we would also cut greenhouse gas emissions and reduce our dependence on imported oil." (Non-CAFE emission reductions measures would also help.)

A Union of Concerned Scientists (UCS) report published in April 2004 found that by using stoichiometric direct-injection engines, automated manual transmissions, 42V integrated starter-generators, and alternative refrigerants in air conditioners, pollution could be reduced 40 percent fleet wide. These improvements could, for example, reduce emissions from a Ford Explorer by 43 percent and from a Toyota Camry by over 40 percent.

UCS also developed a computerized design of a vehicle called the "Guardian," a light truck that has a Ford Explorer's most attractive features, but would be safer and more fuel efficient using only currently available technologies. This vehicle saves fuel by replacing the Explorer's 4-liter V-6 engine with an advanced 2.3 liter, 170 horsepower 6-cylinder engine. It would be fitted with direct fuel injection and a lean-burn combustion process that would use a lower proportion of gasoline to air than today's engines. An integrated starter-generator, similar to what is found in hybrid vehicles, would shut off the engine at stoplights or in traffic. A six speed automatic transmission designed to do away with the torque converter would improve fuel economy. Improved aerodynamics and tires with lower rolling resistance would further improve fuel economy. The weight of the SUV would be reduced to 3,150 pounds through the use of lightweight materials, including aluminum and high-strength steel, improvements that would actually improve overall safety. While the cost would go up $2,300, the UCS estimates that owners would recoup that amount in just over 5 years with reduced fuel costs. This design would reduce the Explorer's emissions from 119 tons to 70 tons over its lifespan.

C02 from vehicle exhaust is directly related to vehicle fuel economy and the pollution vehicles emit can be reduced by making them more fuel-efficient. According to the Sierra Club, for example, currently available technology could change the nation's best-selling SUV, the Ford Explorer, from a 19-mpg gas-guzzler (EPA's numbers) to an efficient 34-mpg vehicle. Increased emphasis on gasoline-electric hybrid vehicles, such as the 51-mpg Honda Insight (CU numbers) and 44-mpg Toyota Prius (CU numbers), can be used to obtain significant improvements in fuel economy. We know how to make cars go farther on a gallon of gas, but with lax CAFE standards, automakers have instead put their technological know-how into making vehicles more powerful in response to consumers' demand. Unfortunately, lax CAFE standards do not provide an appropriate balance to help stimulate production of vehicles that achieve both consumer satisfaction and societal benefits of cleaner air, reduced dependence on foreign oil, and vehicles that are sensibly sized.

A Public Policy Institute survey in California in July 2003 found that 79% of consumers polled supported changing federal regulations to improve gas mileage, including 69% of SUV owners. The computerized Guardian concept vehicle discussed above may be a long way from production, but it is not pie-in-the-sky. We urge automakers to take a closer look at these technologies, for they would bring consumers far safer, cleaner and more fuel efficient vehicles across the fleet.

Increases in CAFÉ and Associated Consequences for Safety

Opponents of increases in the CAFE standard make the argument that requiring better fuel economy will lead to downweighting of vehicles, making them less safe, thereby increasing injuries and fatalities. We don't accept this hypothesis for several reasons:

First, substantial improvements in fuel efficiency can be made without serious reductions in the weight of a vehicle. The fact is that since 1975, CAFE standards doubled fuel economy and the rate of highway fatalities fell by 50 percent. Of course, during this period, motorists have benefited from safety advances like airbags and improved vehicle crashworthiness, while seatbelt usage has increased substantially in the past three decades. But with CAFE standards in place, the fact remains that the number of highway fatalities has declined substantially over the past 29 years. Improved fuel efficiency need not mean increased highway fatalities.

Vehicles that weigh less are not, by definition, more dangerous than vehicles than weigh more. A 2002 study from ACEEE, using NHTSA's own data, found that the average sport utility vehicle or pickup truck is more dangerous than most cars on the road, when the risk posed to other drivers is taken into account. The report also shows that, contrary to conventional wisdom, many small cars have lower driver fatality rates than SUVs or pickups. Many safety advocates acknowledge that a narrower range in vehicle weights would benefit vehicle compatibility, which would mean fewer very heavy or very light vehicles in the fleet.

The study, "An Analysis of Traffic Deaths by Vehicle Type and Model," found that small and mid-size car models such as the Jetta, Accord, and Camry have driver fatality rates

as low or lower than those of any of the major SUV or pickup models. Moreover, essentially all popular car models score better than any popular SUV or truck model when evaluating deaths to drivers in other vehicles.

The authors used NHTSA's Fatality Analysis Reporting System (FARS) data to reach their conclusions. One of the study's authors, Marc Ross, a physicist from the University of Michigan, noted, "Safety studies typically group vehicles in broad categories of weight averages. Our findings show how misleading attempts to attribute safety to vehicle weight can be. Even without correction for behavioral factors that may work against small vehicles, several of the most popular small cars have outstanding real-world safety records."

An analysis of the NHTSA data seems to support ACEEE's findings. NHTSA's overall occupant fatality data for all crashes for 1999, for example, showed that the occupant fatality rate per 100,000 vehicles registered was 17.78 for SUVs and slightly lower, 16.44, for passenger cars. The ACEEE researchers found further that the some of the heaviest vehicles offer only mediocre protection to their own occupants while well-designed smaller vehicles offer better protection than the far heavier SUVs.

As this NHTSA proposal on CAFE reform concedes, both the National Academy of Sciences (NAS) study commissioned by Congress to evaluate CAFE's effectiveness (*Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards*: July, 2001) and a more recent NHTSA study support the idea that downweighting could be a net benefit for safety. Both studies concluded that if weight reductions came from the heaviest vehicles in the light truck fleet, instead of from the lower and medium weight vehicles, there would be a fleetwide safety benefit.

The NAS Report of July 2001 recognized that weight reductions in the heaviest vehicles can improve overall vehicle safety by creating greater compatibility between vehicles on the road. According the K.G. Duleep, who served as a consultant to the NAS Committee, had the NAS incorporated appropriate weight reductions into the ranges of possible fuel economy improvements, in addition to the NAS report's mostly drivetrain improvements, their total fuel economy recommendations would have been 20% higher. Further safety improvements such as reducing differences in bumper height, stiffness and weight would save thousands of lives each year.

The NHTSA study does not examine a reduction of 100 pounds in a specific vehicle, but rather the effect of a vehicle mix shift resulting in the average vehicle being 100 pounds lighter and was conducted pursuant to NAS' recommendation. The study estimates that in light trucks weighing less than 3,870 pounds, the average increase in the fatality rate per 100-pound reduction would be 2.90 percent, and in trucks weighting 3,870 pounds or more, the average increase in fatality rate per 100 pound reduction would be .48 percent.

The study found that downweighting trucks weighing around 5,000 pounds and heavier would actually reduce fatalities. The proposal on which we are commenting here also

notes, "Therefore, as cars and trucks increased in size, the severity of the safety impacts due to weight reduction lessens and eventually disappears. For vehicles above a certain weight, weight reduction may produce safety benefits."

(The NAS and NHTSA reports conclude that downweighting those light trucks that fall into the low and medium weight categories would create more safety risk for occupants of light trucks and other motorists. We are not suggesting that the light and medium weight trucks be downweighted, but instead that the heaviest light trucks are unnecessarily heavy and can and should be made less so.)

To underscore this point, *Consumer Reports'* engineers testing the heaviest SUVs in our November 2002 issue, "Sizing up large SUVs," observed that most of the vehicles they tested were unnecessarily heavy given their primary function of carrying passengers. The one exception was the Honda Pilot. The Pilot's curb weight, 4,450 pounds, contrasts sharply with Toyota Sequoia with a curb weight of 5,280, the Ford Expedition with a curb weight of 5,900 and the Chevrolet Tahoe with a curb weight of 5,505. Each of the vehicles were 7-seaters, all clearly passenger vehicles. The extra weight results in greater fuel consumption and greater pollution. These vehicles simply do not have to be this heavy to perform their function.

CAFE's Benefits

As noted above, even with the current flaws, CAFE standards have brought us considerable savings in fuel. In July of 2001, a National Academy of Sciences report, *Effectiveness and Impact of Corporate Average Fuel Economy Standards,* concluded that “if fuel economy had not improved, gasoline consumption (and crude oil imports) would be about 2.8 million barrels per day higher than it is, or about 14% of today’s consumption. This totals a current savings of $4.3 million per day for consumers.” The lesson here is that with reduced fuel consumption that a restructuring of CAFE would bring, far greater fuel savings could be achieved. The NAS report also found that looking forward, using existing technology and without sacrificing safety, the passenger vehicle fleet could reach an average of nearly 40 mpg by 2012.

Clearly CAFE regulations have not impeded the implementation of safety regulations, and safety regulations have not prevented manufacturers from achieving their CAFE requirements.”(National Academy of Science. *Effectiveness and Impact of Corporate Average Fuel Economy (CAFE) Standards*: July, 2001, p. 2-16).

Congress and CAFE

But under the current CAFE structure, with outdated definitions that allow vehicles clearly designed to serve as passenger vehicles to be classified as trucks--and therefore meet a far lower fuel efficiency standard--the auto industry has little incentive to translate new technology into fuel savings to the consumer and to society.

Indeed, as an EPA study of automotive technology and fuel economy released in December 2000 concluded, had the gains from technology advances been applied to fuel economy instead of performance and weight, today’s vehicles would be about 25%

more fuel-efficient than their 1981 counterparts. But government fuel efficiency requirements have not changed since 1990 for cars and since 1996 for light trucks, so as noted above, the auto industry has focused primarily on making more powerful, not more fuel-efficient, vehicles.

Certainly the responsibility for failure to improve CAFE cannot all be laid at NHTSA's doorstep. Starting in 1995, Congress prevented NHTSA from acting to even consider changes in CAFE standards. The Department of Transportation and Related Agencies Appropriations Act for FY 1996 (P.L. 104-50), Section 330 provided.
None of the funds in this Act shall be available to prepare, propose, or promulgate any regulations . . . prescribing corporate fuel economy standards for automobiles. . .in any model year that differs from standards promulgated for such automobiles prior to enactment of this section.

Though many members of Congress have consistently sought increases in CAFE standards, their views have not prevailed. For example, Senator Tom Daschle (D-SD) introduced a bill in February 2002 that would have raised the average efficiency of new vehicles from today's putative average (cars and light trucks) of 24 miles per gallon (mpg) to 35 mpg by 2013. Senator Daschle's proposal did not prevail. In January 2003, Senators Feinstein (D-CA) and Snowe (R-ME) introduced a bill that, according to the American Council for an Energy-Efficient Economy (ACEEE), called for reducing the fuel consumption of sport utility vehicles (SUVs), vans, and pickups by one million barrels of oil a day by 2016. The bill would have raised the average fuel economy of light trucks to match car fuel economy by the year 2011, and require that vehicles between 8,500 and 10,000 pounds meet fuel economy standards for the first time.

Unfortunately, in 2002 the Senate diverted to NHTSA the job of setting new fuel economy standards, and in the process derailed efforts to raise the fuel efficiency standards to 35 miles per gallon for cars and trucks combined, a 46% improvement over the current putative fuel economy of 24 miles per gallon for cars and light trucks combined. The Senate also voted at the same time to freeze the standard for pickup trucks, which account for 17% of new vehicle sales, at the current light truck standard of 20.7 miles per gallon.

Congress' role in preventing NHTSA from even *exploring* ways to use CAFE to achieve greater fuel savings began to change in 2001 as gas prices spiked upwards. That same year, the Republican-controlled House Energy and Commerce Committee voted 29-1 to direct NHTSA to implement regulations that would result in a nominal reduction in motor vehicle gas consumption of 5 billion gallons from 2004-2010. In the Senate, far more stringent proposals were being proposed. As a result of this pressure, the Bush Administration weighed in. Transportation Secretary Norman Mineta asked Congress in 2001 to lift the restrictions imposed on NHTSA to limit the agency's consideration of CAFE standards. The Department of Transportation and Related Agencies Appropriations Act for FY 2002 (P.L. 107-87) did indeed lift those restrictions.

NHTSA's Recent Action on CAFE

As directed by Congress, NHTSA announced in 2003 it would increase the light truck standard from 20.7 to 22.2 mpg. This nominal improvement in fuel efficiency will be slow in coming, being phased in 2005 through 2007 model years. Assuming no further growth in the share of light truck sales relative to cars, this would put average automobile fuel economy in 2007 about where it was in 1982.

Indeed, even in its public statements about this current proposal, NHTSA says it is not proposing to toughen CAFE standards. Transportation Secretary Norman Mineta told *Automotive News,* the leading publication covering the auto industry, on December 29 of last year that the NHTSA CAFE plan was only the "beginning of an important national dialogue." As the proposal itself notes, "The agency is interested in any suggestions toward revamping the CAFE program in such a way as to enhance overall fuel economy while protecting occupant safety and the economic vitality of the auto market."

The NHTSA proposal for reform of CAFE comes while the nation's consumers are facing the highest ever gas prices per gallon, $1.78 average for the nation in April 2004, with prices predicted to reach $1.81 on average by June 2004. In California and parts of the Northeast, prices are well over $2.00 a gallon and economists are predicting further price spikes in the West and Northeast regions of the country in coming months.

While these increases in gas prices, if they continue, may end up forcing improvements in fuel efficiency, the price hikes are unpredictable and the profits from these higher fuel prices unjustly enrich foreign and sometimes unstable governments or unscrupulous oil and gas merchants. Achieving better fuel efficiency by strengthening CAFE standards and imposing reasonable federal tax increases on fuel over the past three decades targeted to environmental improvement or other worthy programs, would have been a far better policy. It would also have helped to wean Americans off unnecessarily heavy gas guzzlers, reduced our dependence on foreign oil, and reduced air pollution.

Consumers are the losers for these current price increases. The overall fuel efficiency of vehicles they drive has declined steadily over the past decade, from 22.1 mpg measured in 1988 to a putative average 20.4-mpg in 2001, according to the EPA. Consumers are paying more to drive the same distances, and the sting to their pocketbooks only promises to worsen.

While it is difficult to control gas prices, we can affect fuel efficiency of product offerings if we choose to. A 2004 Union of Concerned Scientists report, in fact, argues that consumers who bought new cars and trucks last year would have saved over $3 billion at the fuel pump if automakers had focused existing technology toward greater fuel efficiency. If CAFE and other technological reforms had been in place two decades ago, with vehicles built and sold to carry passengers all having to meet the same passenger vehicle fuel efficiency standards, consumers would now enjoy far more fuel efficient vehicles and vast savings to their pocketbooks, along with other environmental benefits.

Even the leading weekly journal covering the auto industry, *Automotive News*, has criticized CAFE's loopholes and called on the auto industry to embrace the goal of better fuel economy through stronger CAFE standards. This newspaper noted in an April 5, 2004 editorial entitled, "It's time to stop dancing around a CAFE increase,"

> The recent run-up in gas prices has made fuel economy a campaign issue. . . Corporate average fuel economy standards are due for an overhaul. . . The auto industry exploits loopholes to meet the truck standards. For example, the Chrysler PT Cruiser's flat floor allows Daimler/Chrysler to count it as a truck.

The editorial went on to make the following three recommendations:

- All light-duty vehicles should meet a consistent and steadily improving standard.
- Medium-duty trucks that work for a living should meet a somewhat lesser but consistent and steadily improving standard.
- Diesels and other fuel-saving powerplants need a regulatory green light to enter the mix.

CU's Recommendations for Reform of CAFE

We couldn't agree more with *Automotive News'* recommendations for CAFE reform. CU's recommendations are outlined below, but first a look at how NHTSA currently categorizes light trucks and passenger cars.

NHTSA's current definitions

1) Passenger Car – any 4-wheel vehicle not designed for off-road use that is manufactured primarily for use in transporting 10 people or less.
2) Truck – a 4-wheel vehicle which is designed for off-road operation (has 4-wheel drive or is more than 6,000 lbs. GVWR and has physical features consistent with those of a truck); or which is designed to perform at least one of the following functions: (1) transport more than 10 people; (2) provide temporary living quarters; (3) transport property in an open bed; (4) permit greater cargo-carrying capacity than passenger-carrying volume; or (5) can be converted to an open bed vehicle by removal of rear seats to form a flat continuous floor with the use of simple tools.

CU recommendations on reforming CAFE standards are guided by the following principles:

1. All vehicles intended primarily for transportation of passengers should be classified as passenger vehicles and required to meet CAFE standards for passenger vehicles;
2. Vehicles weighing up to 10,000 pounds GVWR should be brought under CAFE's fuel efficiency standards;
3. All vehicles intended primarily for transportation of passengers should to be classified in the same category.

We have reviewed the various options in NHTSA's CAFE reform proposal. We find them to have flaws that will tend to perpetuate, not diminish, the perverse behaviors spawned by the current CAFE standards program. We recommend a simplified, more straightforward approach.

We believe that, for the purposes of CAFE, motor vehicles should be classified according to their primary function. Vehicles designed for use primarily as work vehicles warrant different CAFE levels, therefore, than vehicles designed for use primarily to transport passengers and their personal gear.

In this regard, we believe that minivans and SUVs are primarily intended to serve as passenger vehicles and should be classified as passenger vehicles under CAFE.

In addition, included in CU's recommendations to change CAFE's structure are vehicles that exceed 8,500 lbs gross vehicle weight rating (GVWR) and currently do not have to comply with CAFE standards currently. These include Ford Excursion and General Motors Hummer, both manufactured and sold to serve primarily as passenger vehicles.

Because of their weight, they consume greater quantities of fuel and generate far greater emissions. These supersized vehicles should no longer get a free pass on fuel efficiency standards. *Automotive News* in January 2004 called the Ford Excursion "a favorite target of environmentalists because it is so big and heavy that it doesn't have to be included in CAFE calculations. The same is true of General Motors' Hummer H1 and Hummer H2." In addition, by excluding these vehicles from fuel economy standards, farmers, small businesspeople and others who feel they need a large passenger vehicle are unnecessarily burdened with higher fuel costs.

The current CAFE system, which bases truck/car classifications on attributes like having a fold-down seat despite a vehicle being designed to carry five or seven passengers, is patently irrational and has lead to irrational results that make a mockery of good public policy. In our May 2004 issue, *Consumer Reports* commented on CAFE's classification system in an article entitled, "The fuel-economy shell game."

> When is a car a truck? When it suits an automaker's needs, at least where fuel economy is concerned. . . A case in point: Subaru's plan to certify its 2005 Outback sedans and wagons as light trucks by raising their bodies about an inch. According to Subaru, the taller versions are designed to satisfy outdoor enthusiasts. . . The carmaker's CAFE figures suggest another possibility. Subaru's car-fleet mid-year average was just 0.1 mpg above the requirements for the 2003 models, the most recent data available. Sales of potentially thirstier, turbocharged Legacy cars due in June could have put the company over the brink. Turning Outback cars into trucks eases the pressure by shifting their fuel economy into the more lenient light truck category. Ironically, Subaru's SUV-like Forrester is classified as a car partly because of its lower ground clearance.

> DaimlerChrysler is also playing the fuel economy game. Four years ago the company got its PT Cruiser classified as a light truck by giving it easily removable rear seats that when removed provide more cargo than passenger space. In turn, the PT Cruiser's 22 mpg EPA rating raised the company's CAFE for light trucks, rather than lowered it for cars. A convertible PT Cruiser, new this year, has nonremovable seats. That means the ragtop is classified as a car.

CU's Recommended New Definition for Light Vehicles and Recommended New CAFE standards:

CU recommends the following definitions be used to classify Light Vehicles and the corresponding new CAFE standards be applied to each category:

Light Duty Trucks: All vehicles with a Gross Vehicle Weight (GVW) (we use GVW for pickup trucks since they are more likely to operate loaded, but use Curb Weight for passenger cars, which are less likely to be driven fully loaded) less than 10,000 lbs that normally have or are capable of having an open cargo bed. We include in this category cargo vans, defined as vehicles designed to carry cargo and that do not have side windows behind the "B" pillar.

CAFE Improvements: starting from a base of 20.7 mpg, the current CAFE standard for light trucks, we call for improving light duty trucks' fuel efficiency 1 mpg per year over the next five years.

Light Passenger Vehicles: All vehicles with a Curb Weight (CW) of 4,000 lbs or less that are capable of seating up to nine passengers and are not capable of having an open cargo bed.

CAFE Improvements: starting from the current CAFE car standard of 27.5 mpg, we call for improving light passenger vehicles' fuel efficiency 7 mpg over the next 5 years.

Heavy Passenger Vehicles: All vehicles with a Curb Weight (CW) greater than 4,000 lbs that are capable of seating up to nine passengers and are not capable of having an open cargo bed.

CAFE Improvements starting from a base of 24.1 mpg (the midpoint between current light truck CAFE standard of 20.7 and the current passenger car CAFE standard of 27.5), we call for improving heavy passenger vehicles' fuel efficiency improve fuel economy 7 mpg in the next 5 years.

We would welcome to opportunity to discuss these proposals more fully with either NHTSA and/or the Environmental Protection Agency (EPA).

CU's Recommendations for Upgrading CAFE
Using CU's proposed vehicle classification system, we propose changing the CAFE requirements over the next five years. We believe these overall categories capture the essence of the principle enunciated above relating to vehicle function and CAFE requirements. There are slight anomalies near the boundaries, which can be dealt with by NHTSA through more elaborate definitions, but the main principle stays intact.

We understand that automakers need to provide consumers with vehicles that offer the functions they need and desire, but as discussed above, we believe automakers could very adequately respond to those needs with far less weighty vehicles.

We believe these categories are realistic and that the CAFE miles per gallon baselines and goals for achieving fuel efficiency improvements from those baselines are realistic as well.

It is important to realize that while weight is the problem, size is not. The classification system we recommend recognizes the primary functional differences between passenger vehicles and work vehicles, but would set both categories of vehicles on a course of greater fuel efficiency over the next five years. We should use this opportunity to bring much needed reforms and thereby improve America's automobile fuel efficiency, lower auto emissions and ease America's dependence on foreign oil.

April 27, 2004

Respectfully Submitted,
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In Figure 1 (appended), we show pictorially fuel economy versus curb weight using adjusted EPA overall fuel economy ratings for 933 MY2002 vehicles powered by gasoline, hybrid, and diesel engines. Two observations are worth noting here.

1. For conventional gas engines, there is an unmistakable and well-recognized relationship between vehicle weight and fuel economy.

2. The graph makes vivid that major breakthroughs for improving fuel economy have come from using diesel engines and hybrid designs.

Figure 1: Final CAFÉ MPG Versus Curb Weight