



April 3, 2006

Environmental Protection Agency  
EPA Docket Center, Air and Radiation Docket  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
Docket No. EPA-HQ-OAR-2005-0169

**Comments on  
“Fuel Economy Labeling of Motor Vehicles:  
Revisions To Improve Calculations of Fuel Economy Estimates,”  
71 FR 5426 *et seq.***

**Introduction**

Public Citizen welcomes the Environmental Protection Agency’s (EPA) attention to the need to revise the calculation of fuel economy estimates. Changes in driving conditions have created a discrepancy between the fuel economy estimates produced under current EPA methods and the fuel economy many users experience in the real world. This discrepancy substantially undermines the value of the testing program by creating inaccurate results for consumers who care about fuel economy. Assuming \$1.70 per gallon, which is far below the average price of gas today, it has been determined that consumers will in a single year spend \$20 billion more on gas than expected based on EPA’s calculations.<sup>1</sup> This is an issue of great concern for consumers, and Public Citizen has received numerous phone calls from drivers whose vehicle’s fuel economy is below that calculated by EPA.

Significantly, as this rulemaking shows, the underlying problem the agency must address is that driving conditions change over time, yet EPA lacks a procedure to update fuel economy calculations on an ongoing basis to reflect those changes. EPA should update the fuel economy calculations to account for current driving conditions and establish procedures to ensure that fuel economy calculations are updated in the future on a regular basis to reflect changes in driving conditions.

## **Fuel Economy Calculations Must Be Revised**

As EPA notes, many studies indicate that the agency's fuel economy estimates differ from that achieved in real-world driving.<sup>2</sup> This should be no surprise – the current fuel economy calculation procedures were last revised in the mid-1980s, yet driver behavior and vehicle technology have drastically changed in the past 20 years. (These changes are detailed in comments submitted previously to EPA by Union of Concerned Scientists and Public Citizen.<sup>3</sup>) Essentially, the current test procedures are out-of-date and fail to account for today's real-world driving conditions.

Accurate fuel economy estimates are critical to enabling consumers to make informed decisions affecting the environment, national security and their finances when purchasing a new vehicle. In addition, lawmakers need accurate fuel economy estimates to address policies related to oil consumption. Given today's exorbitant gas prices and the prominence of oil consumption as a topic in political debate, accurate fuel economy estimates are all the more important. Recognizing this fact, Congress, following agency inaction, mandated in the Energy Policy Act of 2005 that EPA revise the fuel economy testing procedures to better reflect real-world driving conditions.

## **Proposed Revisions Will Likely Increase Accuracy, Yet May Still Be Inaccurate**

EPA's proposed revisions to fuel economy calculation procedures account for real-world driving conditions neglected by the current procedures, which will likely increase the accuracy of EPA's calculations. The agency's 5-cycle approach – which incorporates the US06, SC03 and Cold FTP tests into fuel economy calculations – will subject vehicles to aggressive driving tactics and cold weather conditions in measuring fuel economy. However, the 5-cycle approach may still not reflect current driving conditions.

The US06 and SC03 tests, which subject vehicles to high acceleration and top speed conditions, were developed in response to a survey of real-world driving conducted in 1992.<sup>4</sup> Yet recent surveys of real-world driving behavior indicate that driving behavior is more aggressive now than it was in 1992.<sup>5</sup> In fact, about 33 percent of real-world driving now occurs outside of the FTP/HFET speed and acceleration activity region.<sup>6</sup> In contrast, in 1992, only 18 percent of driving occurred outside of the tests' speed and acceleration activity regions.<sup>7</sup> In addition, as EPA acknowledges, the driving conditions reflected in the US06, SC03 and Cold FTP tests significantly impact fuel economy, and there is “a large amount of vehicle-to-vehicle variation” in the degree to which the conditions affect fuel economy.<sup>8</sup> It is critical that EPA's testing procedures reflect current real-world driving conditions. Tests that do not account for real-world driving conditions will result in fleet-wide inaccuracies and unfairly penalize or reward vehicles based on their particular reactions to the test conditions, undermining the comparative accuracy of EPA's fuel economy calculations.

The proposed 5-cycle approach relies upon old tests that may not account for factors experienced in current real-world driving. EPA needs to conduct a thorough

study of real-world driving behavior and establish test procedures that reflect its findings. In addition, EPA must conduct periodic studies of real-world driving conditions to ensure that its procedures account for changing driving conditions. Real-world driving conditions, which affect fuel economy, change over time. If EPA's calculation procedures are to accurately estimate fuel economy, the agency must ensure that they reflect changes in driving conditions. In revising its calculation procedures consistent with changes in real-world driving conditions, the agency should avoid generic adjustments and instead revise its tests to account for vehicle-to-vehicle differences. The agency may need to alter acceleration rates, speed, use of in-vehicle appliances, idling time and other factors in revising its tests.

### **Agency Correct in Rejecting Adjustments**

A laudable step forward in the proposed rulemaking is the elimination of the current one-size-fits-all downward adjustments. The adjustments, which are intended to account for driving factors neglected by the current fuel economy tests, assume that all vehicles react similarly to driving conditions such as high acceleration, high top speed and cold weather operation. This is not the case. In the agency's own words, "there is a significant degree of variation that is apparent across vehicles."<sup>9</sup> Generic adjustments blur such variation.

Yet despite its renunciation of adjustments, EPA proposes to allow manufacturers to use an adjustment, the mile-per-gallon (mpg) -based calculation approach, to estimate vehicle fuel economy. The agency states that this is appropriate in cases in which the 5-cycle data is substantially similar to the mpg-based estimate. Specifically, the agency is proposing to allow manufacturers to use mpg-based estimates for vehicle configurations when the emissions test vehicle that represents those vehicle configurations is calculated according to the 5-cycle approach to have fuel economy similar to its estimated fuel economy according to the mpg-based approach. The agency, however, does not demonstrate that all vehicle configurations represented by an emissions test vehicle achieve fuel economy substantially similar to the test vehicle. EPA's proposal, then, may apply fuel economy estimates to vehicles that do not in fact achieve that fuel economy.

### **Responses to Requests for Comment:**

1. *Should EPA lower the posted fuel economy estimates so that a larger percentage of consumers exceed the posted rating?*
  - No. EPA should strive to present to consumers accurate fuel economy estimates. The agency should retain the current procedure of posting the average expected city and highway fuel economy, as posting an estimate less than the average fuel economy would render it inaccurate for a greater percentage of consumers. In addition, the posting of the range of expected fuel economy informs consumers that the real-world fuel economy performance they experience may be less than the average fuel economy posted on the sticker. This addresses the agency's concerns.

2. *Should EPA require manufacturers to run the heater and defroster while performing the Cold FTP test?*
  - Yes. Most consumers would run the heater and defroster in 20-degree weather, but the agency should investigate this in a thorough study of real-world driving conditions. Incorporating this procedure into the Cold FTP will increase its accuracy. Also, not requiring the procedure penalizes manufacturers that choose to better replicate real-world driving conditions in estimating fuel economy by running the heater and defroster in the Cold FTP test. In the interests of providing consumers with more accurate fuel economy information and establishing a level playing field among manufacturers, EPA should require that the heater and defroster be run during the Cold FTP test.
3. *Should fuel economy be presented in gallons-per-mile rather than miles-per-gallon?*
  - At the current time, no. Though there is merit to the gallons-per-mile metric, consumers are very comfortable with the miles-per-gallon presentation, as noted by the agency.<sup>10</sup> Presentation of fuel economy estimates in gallons-per-mile should be approached with careful deliberation, including extensive public outreach, if at all. Also, currently the estimated annual fuel cost presented on the fuel economy label provide information derived from a gallons-per-mile metric, which may make a gallons-per-mile format unnecessary.
4. *What additional information could be made available either in the annual Fuel Economy Guide or the [www.fueleconomy.org](http://www.fueleconomy.org) Web site?*
  - Public Citizen is supportive of the addition of a fuel economy calculator to allow consumers to obtain a fuel economy estimate tailored to their specific driving conditions. However, the agency must take care to ensure that it produces accurate estimates. The fuel economy calculator, if adopted by the agency, should be referenced in the fuel economy label.
5. *Should the fuel economy label text include the combined fuel economy number as part of the derivation for Estimated Annual Fuel Cost?*
  - Yes. The combined fuel economy number is part of the equation determining the estimated annual fuel cost. Including it in the explanation of the estimated annual fuel costs would likely make the calculation more transparent to consumers. However, EPA should conduct a focus group study to determine consumer response to this approach.
6. *What are the merits of a graphical representation of the fuel economy of comparable class vehicles?*
  - A graphical representation of the fuel economy of comparable class vehicles may make such information more easily understood and less easily dismissed by

consumers. It also may be more easily understood by non-English speakers. A graphical representation should be used for city and highway fuel economy estimates rather than the combined fuel economy in place of city and highway estimates. EPA has recognized the importance of distinguishing between city and highway driving, and it should maintain this distinction in presenting information on comparable class vehicles. EPA should conduct a focus group study to determine the best format for graphical representation of comparable class fuel economy.

7. *Prominence of government logos and reference to [www.fueleconomy.gov](http://www.fueleconomy.gov).*

- Public Citizen supports increasing the prominence of government logos to indicate that EPA and DOE are responsible for the fuel economy labels. As EPA notes, many consumers in focus groups did not know that EPA was the source of fuel economy estimates and, upon learning this, found the labels to be more credible. Consumers should be assured that the fuel economy information presented on the labels is credible, and increasing the prominence of the agency logos may have this effect. Also, Public Citizen supports the reference to [www.fueleconomy.gov](http://www.fueleconomy.gov). If the agency develops a Web-based tool to allow individual calculation of fuel economy estimates, this should be specifically referenced as well.

8. *Comparable class categories.*

- Public Citizen supports creating “SUV” and “Minivan” classes to reflect changes in the vehicle fleet. EPA should, however, include crossover vehicles in the SUV class. Crossovers offer many of the same features of SUVs, and consumers interested in crossovers consider them for their SUV characteristics. The comparative fuel economy of SUVs and crossovers is critical information for consumers when deciding which to purchase.

## **Other Comments**

### EPA Should Not Allow Electronic Presentation of the Fuel Economy Guide to Replace Paper Versions of the Guide

EPA should not allow dealers to provide electronic versions of the Fuel Economy Guide in place of paper versions, as many consumers may be disinclined to use a computer. EPA states that allowing dealers to do this on a trial basis for 2004 and 2005 model years has been successful, yet the agency provides no supporting data and does not indicate in what way it has been successful. There are merits to electronic presentation of the Fuel Economy Guide, but the agency should not at this time allow dealers to substitute electronic versions of the guide for paper copies.

### EPA Has Clear Authority to Test and Label Vehicles Above 8,500 lbs. and Should Do So

Citing 49 U.S.C. § 32908, EPA asserts in the notice that “[t]his section restricts EPA’s requirements for fuel economy labeling to automobiles rated at no more than

8,500 pounds gross vehicle weight.” This passage mis-quotes the statute and draws the opposite conclusion than is warranted under prevailing canons of statutory construction. Those canons actually dictate that EPA’s authority is not “restrict[ed]” to vehicles below 8,500 pounds and likely even legally compel EPA to label vehicles above 8,500 lbs. if their use is similar to those below that weight.

The language in 49 U.S.C. § 32908 provides:

§ 32908. Fuel economy information

(a) Definitions.— In this section—

(1) “automobile” *includes* an automobile rated at not more than 8,500 pounds gross vehicle weight regardless of whether the Secretary of Transportation has applied this chapter to the automobile under section 32901 (a)(3)(B) of this title. [*Emphasis added.*]

The clear meaning of this phrase is that automobiles below 8,500 pounds are merely a minimum set of automobiles that should be regulated, based on the plain and typical usage of the word “includes.” (*See Merriam-Webster’s Dictionary*, defining “include” as “to contain within as part of the whole.”) If Congress had intended that EPA’s authority was limited to vehicles below 8,500 pounds, it would have indicated such by replacing “includes” with “is” or, more commonly, with “means.” Indeed, it did so indicate with the definition of dealer in the very next subsection of the statute (*see* 49 U.S.C. § 32908 (a)(2): “dealer *means* a person residing or located in a State, the District of Columbia, or a territory or possession of the United States,” etc. *Emphasis added.*).

The courts agree that “includes” is an expansive rather than a limiting term. As a federal Court of Appeals observed in *Federal Election Commission (FEC) v. Massachusetts Citizens for Life*, 769 F.2d 13, 17 (1<sup>st</sup> Cir. 1985):

A term whose statutory definition declares what it “includes” is more susceptible to extension of meaning by construction than where the definition declares what a term “means.” It has been said “the word ‘includes’ is usually a term of enlargement, and not of limitation.... It, therefore, conveys the conclusion that there are other items includable, though not specifically enumerated. N. Singer, *Sutherland Statutes and Statutory Construction* 133 (4th ed. 1984) (quoting *Argosy Ltd. v. Hennigan*, 404 F.2d 14, 20 (5th Cir.1968)).

As *Argosy* notes, the term ‘includes’ “therefore conveys the conclusion that there are other items includable, though not specifically enumerated by the statute.” *See* 404 F.2d at 20.

The Supreme Court has agreed with this view. The Court long ago noted in *Helvering v. Morgan*, 229 U.S. 121, 125 (1934), in analyzing a tax statute, that:

The terms 'means' and 'includes' are not necessarily synonymous. The distinction in their use is aptly pointed by sections 2, 200 of the act itself (26 USCA §§ 1262, 931). Section 2(a) of the act . . . gives general definitions of ten terms; of these, three are stated to 'include' designated particular instances, the other seven are stated to 'mean' the definitions subsequently given. . . . That the draftsman used these words in a different sense seems clear. The natural distinction would be that where 'means' is employed, the term and its definition are to be interchangeable equivalents, and that the verb 'includes' imports a general class, some of whose particular instances are those specified in the definition.

*See also United States v. Mass. Bay Transportation Authority*, 614 F.2d 27, 28 (1<sup>st</sup> Cir. 1980) (stating that “‘includes’ is not a finite word of limitation; its use destroys the basis for implying the negative” and observing that “[t]his would seem particularly so when the statute elsewhere uses ‘means.’” *Citing Highway & City Freight Drivers, Dockmen & Helpers v. Gordon Transports, Inc.*, 576 F.2d 1285, 1289 (8<sup>th</sup> Cir. 1978).

Moreover, such an interpretation is far more consistent with legislative history and intent of the Energy Policy and Conservation Act (EPCA). Indeed, § 6201 of the public law, the Congressional Statement of Purpose, indicates that the explicit goals of enactment included:

- (4) to conserve energy supplies through energy conservation programs . . .
- (5) to provide for improved energy efficiency of motor vehicles . . .
- (7) to provide a means for verification of energy data to assure the reliability of energy data.

P.L. 94-163 § 6201 (1975).

The overall legislative history of EPCA also would direct the agency to a broader view of Congressional intent than EPA indicates. Congress was intensely interested in reducing national oil consumption for passenger vehicles and would almost certainly have increased the weight specified in the definition to include heavier vehicles used similarly to those below 8,500 pounds.

Indeed, its use of the word “includes” appears a deliberate choice that preserves flexibility for the agency to update its regulations to account for changing circumstances. It begs all logic that EPA has interpreted the law incorrectly as a rigid barrier when its plain terms instead provide a pliant tool that could secure far greater oil savings. As vehicles above 8,500 pounds are the worst gas guzzlers in the fleet, the clear intent of EPCA should now compel the agency to include them in the program.

The most complete recent report on the subject found that: “Using class 2b vehicle-miles (Section 3.5) divided by an estimated fuel economy of 14 mpg [] puts the fuel use of class 2b trucks at 5.5 billion gallons, or 929 gallons per truck (vmt/mpg=gallons of fuel used).”<sup>11</sup> Vehicles over 8,500 pounds are often used as traditional passenger vehicles, and purchasers of these vehicles deserve fuel economy information just as much, or even more, as those of lighter vehicles.

The importance of addressing the fuel economy of vehicles within this weight class is reflected in NHTSA's recent decision to extend fuel economy requirements to certain vehicles up to 10,000 pounds. In making this decision, NHTSA cited EPA's finding that certain vehicles greater than 8,500 pounds are used primarily to transport passengers.<sup>12</sup> However, the statute is also clear that NHTSA's decision to regulate vehicles under 49 U.S.C. § 32901 (a)(3)(B) is *irrelevant* to whether EPA should test and label them. *See* 49 U.S.C. § 32908 (a) (requiring EPA to act “*regardless* of whether the Secretary of Transportation has applied this chapter to the automobile under section 32901 (a)(3)(B) of this title.” *Emphasis added.*).

### EPA Should Require Environmental Information on Fuel Economy Labels

As the agency notes, focus group studies have shown public support for environmental data on fuel economy labels. This information would greatly enhance the ability of consumers to purchase a vehicle that meets their environmental demands.

### **Conclusion:**

EPA should make the following changes to its fuel economy calculation procedures and labeling requirements:

- Establish revised fuel economy test procedures consistent with the findings of a thorough study of real-world driving conditions.
- Establish a procedure to update fuel economy calculations and tests on an ongoing basis to reflect changes in real-world driving conditions.
- Require manufacturers to run the heater and defroster while performing the Cold FTP test.
- Establish an on-line fuel economy calculator to provide consumers with custom-tailored fuel economy estimates.
- Create class categories for comparable class comparisons for SUVs and minivans.
- Include crossovers in the “SUV” class for comparable class comparisons.
- Extend the labeling requirement to all vehicles up to 10,000 pounds gross vehicle weight.
- Allow electronic presentation of the Fuel Economy Guide but continue to require that dealers provide hard copies of the Guide for consumers.
- Include environmental information on fuel economy labels.
- Provide a graphic representation on fuel economy labels of the city and highway fuel economy for comparable vehicles.
- Increase the prominence of government logos on fuel economy labels.
- Inform consumers on fuel economy labels that more information is available at [www.fueleconomy.gov](http://www.fueleconomy.gov).

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<sup>1</sup> Friedman, David and Don MacKenzie, “Comments Concerning EPA’s Request for Comments on a Petition to Amend Fuel Economy Testing and Calculation Procedures,” Docket No. OAR-2003-0214, July 27, 2004 at 1.

<sup>2</sup> 71 FR 5429.

<sup>3</sup> See Friedman, David and Don MacKenzie, “Comments Concerning EPA’s Request for Comments on a Petition to Amend Fuel Economy Testing and Calculation Procedures,” Docket No. OAR-2003-0214, July 27, 2004; and “Comments on Petition to Amend Fuel Economy Testing and Calculation Procedures, Docket OAR-2003-0214,” Public Citizen, August 4, 2004.

<sup>4</sup> Final Technical Report on Aggressive Driving Behavior for the Revised Federal Test Procedure Notice of Proposed Rulemaking, EPA, January 31, 1995.

<sup>5</sup> 71 FR 5431.

<sup>6</sup> 71 FR 5431.

<sup>7</sup> 71 FR 5431.

<sup>8</sup> 71 FR 5434.

<sup>9</sup> 71 FR 5430.

<sup>10</sup> 71 FR 5471.

<sup>11</sup> See Stacy C. Davis & Lorena F. Truett, Investigation of Class 2b Trucks (Vehicles of 8,500 to 10,000 lbs GVWR), Mar. 2002, ORNL/TM-2002/49.

<sup>12</sup> Average Fuel Economy Standards for Light Trucks, Model Years 2008-2011, NHTSA, Docket No. 2006- 24306 at 274.