

## DEPARTMENT OF TRANSPORTATION

## National Highway Traffic Safety Administration

## 49 CFR Part 538

[Docket No. NHTSA-98-3429]

RIN 2127-AF37

## Minimum Driving Range for Dual Fueled Electric Passenger Automobiles

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** This rule establishes a minimum driving range of 7.5 miles for dual fueled electric passenger automobiles, otherwise known as hybrid electric vehicles (HEVs), when operating on the EPA urban cycle and a minimum driving range of 10.2 miles on the EPA highway cycle. The purpose of establishing the range is to meet statutory requirements intended to encourage the production of HEVs. An HEV which meets the range would qualify to have its fuel economy calculated according to a special procedure that would facilitate the efforts of its manufacturer to comply with the corporate average fuel economy standards.

**DATES:** This final rule is effective February 1, 1999. Petitions for reconsideration must be submitted by January 16, 1999.

**ADDRESSES:** Petitions for reconsideration should be submitted to the Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Mr. P.L. Moore, Motor Vehicle Requirements Division, Office of Market Incentives, National Highway Traffic Safety Administration, 400 Seventh Street SW, Washington, DC 20590, (202) 366-5222.

## SUPPLEMENTARY INFORMATION:

## I. Background

## A. Alternative Motor Fuels Act of 1988

Section 6 of the Alternative Motor Fuels Act of 1988 amended the fuel economy provisions of the Motor Vehicle Information and Cost Savings Act (Cost Savings Act) by adding a new section 513, "Manufacturing Incentives for Automobiles." Section 513 contained incentives for the manufacture of vehicles designed to operate on alcohol or natural gas,

including dual fuel vehicles, i.e., vehicles capable of operating on one of those alternative fuels and either gasoline or diesel fuel.

Section 513 provided that dual fuel vehicles meeting specified criteria qualify for special treatment in the calculation of their fuel economy for purposes of the corporate average fuel economy (CAFE) standards. The fuel economy of a qualifying vehicle is calculated in a manner that results in a relatively high fuel economy value, thus encouraging its production as a way of facilitating a manufacturer's compliance with the CAFE standards. One of the qualifying criteria for passenger automobiles was to meet a minimum driving range, which was to be established by NHTSA.

NHTSA was required to establish two minimum driving ranges, one for "dual energy" (alcohol/gasoline or diesel fuel) passenger automobiles when operating on alcohol, and the other for "natural gas dual energy" (natural gas/gasoline or diesel fuel) passenger automobiles when operating on natural gas. In establishing the driving ranges, NHTSA was to consider the purposes of the Alternative Motor Fuels Act, consumer acceptability, economic practicability, technology, environmental impact, safety, driveability, performance, and any other factors deemed relevant.

The Alternative Motor Fuels Act and its legislative history made it clear that the driving ranges were to be low enough to encourage the production of dual fuel passenger automobiles, yet not so low that motorists would be discouraged by a low driving range from actually fueling their vehicles with the alternative fuels.

## B. Energy Policy Act of 1992

The Energy Policy Act of 1992 amended section 513 of the Cost Savings Act to expand the scope of the alternative fuels it promotes. The amended section provided incentives for the production of vehicles using, in addition to alcohol and natural gas, liquified petroleum gas, hydrogen, coal derived liquid fuels, fuels (other than alcohol) derived from biological materials, electricity (including electricity from solar energy), and any fuel NHTSA determines, by rule, is substantially not petroleum and would yield substantial energy security benefits and substantial environmental benefits.

Section 513 continued to provide incentives for the production of dual fuel vehicles, i.e., vehicles that operate on one of a now expanded list of alternative fuels, including electricity, and on gasoline or diesel fuel. NHTSA

notes that some statutory terminology was changed by the 1992 amendments. Among other things, the terms "dual energy" and "natural gas dual energy" were dropped, and the terms "alternative fueled automobile," "dedicated automobile," and "dual fueled automobile" were added.

Section 513 also continued to require dual fueled passenger automobiles to meet specified criteria, including meeting a minimum driving range, in order to qualify for the special treatment in the calculation of their fuel economy for purposes of the CAFE standards.

The 1992 amendments necessitate amending Part 538. The agency must establish a minimum driving range for the expanded scope of dual fueled vehicles. Minimum driving range standards for all dual energy passenger automobiles except electric vehicles were established by a final rule issued on March 21, 1996. (61 FR 14507)

On July 5, 1994, the Cost Savings Act was revised and codified "without substantive change." The provisions formerly found in section 513 of the Cost Savings Act are now at 49 U.S.C. 32901, 32905, and 32906. In setting the minimum driving range for dual energy electric passenger automobiles, NHTSA is required by 49 U.S.C. 32901(c)(3) to consider the purposes set forth in section 3 of the Alternative Motor Fuels Act of 1988 as amended by the 1992 Energy Policy Act:

(1) To encourage the development and widespread use of methanol, ethanol, natural gas, other gaseous fuels, and electricity as transportation fuels by consumers; and

(2) To promote the production of alternatively fueled motor vehicles.

Section 32901(c)(3) also requires that the agency consider consumer acceptability, economic practicability, technology, environmental impact, safety, drivability, performance, and other relevant factors in setting a minimum driving range.

## C. Regulatory Background

To aid the agency in relating the data on driving range for dual fueled electric vehicles to the unique characteristics of dual fueled passenger automobiles, NHTSA published a Request for Comments in the **Federal Register** (59 FR 48589) on September 22, 1994. In that document, the agency posed a number of questions on the use of dual fueled electric passenger automobiles relating to the determination of a driving range that would serve the purposes of the Alternative Motor Fuels Act and the Energy Policy Act.

NHTSA published a notice of proposed rulemaking (NPRM) on January 3, 1997 (62 FR 375). Based on

NHTSA's review of comments in response to the Request for Comments, a review of current literature, studies of current industry capabilities, an assessment of the available technology, and existing statutory requirements, the agency proposed to set the minimum driving range for HEVs, even though operating solely on electricity, at 17.7 miles—the range required to complete one EPA urban/highway cycle under the current Federal Test Procedure (FTP).

The NPRM stated the agency's view that setting a minimum driving range at 17.7 miles would ensure that HEVs will have sufficient driving range to meet the needs of consumers while also encouraging HEV development. NHTSA tentatively concluded that a 17.7 mile minimum range would not be so stringent as to foreclose the development of vehicles relying on new technologies or entry into the market without unduly large expenditures of capital resources. The proposed range was considered to be sufficient to meet the needs of many vehicle users. The agency also noted that setting the minimum driving range at 17.7 miles would allow the use of EPA test procedures, where one complete highway and urban cycle consists of 17.7 miles.

The NPRM also indicated that the proposed minimum driving range contemplated operation of the vehicle solely on electric power when some hybrid designs under consideration are full-time hybrids. In these vehicles, electric and internal combustion engines are designed to complement each other and may not have sufficient power alone to adequately propel the vehicle. NHTSA also observed that other designs in which the vehicle may be operated on electric power alone may not have sufficient range to meet the proposed 17.7 mile minimum range. The agency tentatively concluded that calculation of the fuel economy of a dual fueled automobile under Section 513 of the Cost Savings Act (now 49 U.S.C. 32905) requires that the vehicle be operated solely on the alternative fuel and, as set forth in 49 U.S.C. 32904(c), have its energy consumption measured through use of the EPA combined urban and highway cycle. In the NPRM, NHTSA indicated its tentative view that this statutory requirement compelled a minimum driving range specifying electric-only operation for a distance equivalent to one EPA cycle.

#### *D. Hybrid Electric Vehicle Driving Range Requirements*

NHTSA received comments regarding driving range proposed in the NPRM

from Toyota, Mercedes Benz, the American Automobile Manufacturers Association (AAMA) and Jeffrey J. Ronning. In addition, the agency received comments from the Department of Energy (DOE) in response to a draft NPRM which NHTSA had forwarded to DOE for review.

Toyota expressed opposition to the proposed 17.7 mile electric-only minimum driving range. The company stated that such a range will limit the development of HEVs by forcing increased battery volume. This increased battery volume, in Toyota's view, would drive up costs and make HEVs less attractive to consumers. Toyota also indicated that the proposed range would force an emphasis on the employment of batteries and electricity in comparison to other configurations in which fuel powered engines and batteries are used together. Toyota further suggested that the minimum driving range should be set at zero in order to promote the maximum development of new technologies.

The American Automobile Manufacturers Association (AAMA) also suggested that the minimum driving range for HEVs be set at zero because any other driving range would serve as a disincentive for the development of HEVs. The AAMA submission argued that the use of an electric-only mode of operation for measuring driving range would provide an advantage to vehicles capable of driving on electricity only. As some hybrid designs would not have this capability but may also be able to recharge their batteries from an external source, AAMA contends that a driving range greater than zero would unnecessarily restrict development of hybrids that would otherwise be eligible for CAFE incentives. AAMA further suggested that if NHTSA concludes that it must set a driving range greater than zero, that HEVs with an all electric range should be required to meet only 7.5 miles on the urban cycle and 10.2 miles on the highway cycle in two separate tests with charging allowed prior to each test. For vehicles that do not have the capability to complete this suggested test cycle on electric power, AAMA suggested that an alternative test procedure for measuring range be developed.

Mercedes-Benz also opposed the proposed 17.7 mile minimum driving range. In its comments, Mercedes advocated that no minimum driving range be set in the final rule and that doing otherwise would limit the ability of manufacturers to introduce promising designs and configurations. Mercedes also agreed with the agency's view that section 32905 requires that alternative

fueled vehicles be operated solely on an alternative fuel to calculate fuel economy and that 49 U.S.C. § 32904(c) requires the use of a combined urban and highway cycle that is 55% urban and 45% highway. The company argued, however, that the selection of the 17.7 mile EPA cycle ignores the provisions in § 32904(c) allowing fuel economy calculations to be based on procedures giving comparable results to the EPA cycle. In Mercedes' view, a fuel economy test comparable to the existing EPA cycle which does not require a vehicle to travel 17.7 miles could be developed. Therefore, Mercedes contended that the agency's determination that a 17.7 mile driving range must be used to measure fuel economy was incorrect. Mercedes also argued that the agency's preliminary finding that the 17.7 mile range was appropriate for meeting consumer needs and expectations is unsupported by any facts.

Mr. Jeffrey J. Ronning, an engineer with experience in the development of automotive electric propulsion systems, supported the proposed 17.7 mile range. Mr. Ronning indicated that the proposed range would foster development of "electric dominant hybrids" as opposed to "combustion dominant hybrids." Mr. Ronning described "electric dominant hybrids" as vehicles with a battery range of about 70 miles, which use 1/6th of the petroleum of a conventional vehicle and operate with zero emissions in urban and local use. Such vehicles, Mr. Ronning argues, are superior in terms of energy independence, environmental benefits and technological feasibility.

The Department of Energy (DOE) submitted comments generally applicable to driving range. DOE noted that it has not specified a minimum driving range in its HEV development programs. In DOE's view, electric and conventional power sources employed in HEVs are intended to complement each other and are often not sized to propel the vehicle alone. Batteries pose specific difficulties in that they are heavy and take up large amounts of space. Many HEV designs, according to DOE, use smaller batteries that are ill suited to the task of providing propulsion. DOE cautioned that setting a minimum driving range at too high a level will force the use of larger batteries and limit the development of alternative technologies.

DOE suggested that, if the legislative scheme made such an option possible, NHTSA should establish a sliding scale that would set the minimum driving range in inverse proportion to the fuel economy of an HEV when compared to

that of conventional vehicles. Under this scheme, an HEV with fuel economy three times greater than a conventional vehicle achieving 26.5 mpg would only be required to have a range of 5 miles on electric power alone. HEVs with fuel economy equivalent to conventional vehicles would be required to have a range of 35 miles. In DOE's view, such a sliding scale would reward those designs that achieved the highest fuel economy while ensuring that maximum flexibility be provided to HEV developers.

DOE also urged NHTSA to consider data showing that a range of 10 miles would satisfy 77 percent of daily vehicle trips in setting a driving range. Thus, according to DOE, a modest driving range would satisfy consumer needs.

DOE further suggested that NHTSA consider an alternative test procedure to the EPA cycle and suggested that the draft Society of Automotive Engineers (SAE) Hybrid Vehicle Test Procedure (SAE J1711) be used as a guide to developing such a test. The use of the electric-only mode of operation for specifying driving range and measuring fuel economy, in DOE's view, operates on the assumption that an HEV must "be charged from the grid" or derive its electrical energy from a source other than its conventional petroleum fuel engine to qualify for the incentives contained in Chapter 329. DOE believes that HEVs may not have this capability and also may be designed so that the operator may not have control over the mode of operation. Therefore, DOE stated, a fuel economy test using a single mode of operation may be wholly inappropriate for HEVs.

## II. Analysis of Comments

Hybrid electric vehicle technology is still in its infancy. Developers of these vehicles are pursuing a variety of configurations, including vehicles which use both conventional and alternative fuels simultaneously. A number of HEV designs include vehicles in which the alternative fuel used (electricity) is generated solely by the petroleum fueled engine incorporated into the vehicle. These hybrid designs are not intended to rely on the alternative fuel to propel the vehicle for an appreciable distance or under all anticipated driving conditions. Instead, the alternative fuel propulsion system is designed to either supplement the conventional fuel powerplant or to work in conjunction with that powerplant when demand for energy is relatively high.

Two commenters, DOE and AAMA, indicated that the selection of an electric-only mode of operation for

determining driving range is inconsistent with current developments in HEV technology. DOE noted that HEVs may not even provide operators with the option of selecting a particular power source. Instead, the vehicle itself will determine when to use its conventional or electric propulsion system. AAMA argued that a dual fueled automobile that uses electricity as one of its fuels should not be restricted by the requirement that it be capable of operating only on electricity in order to qualify for CAFE incentives.

The comments of DOE and AAMA raise the issue of whether an HEV that uses electricity and petroleum fuel simultaneously can qualify for CAFE incentives under the Cost Savings Act and the subsequent EPACT amendments. Section 32901(a)(2) defines an alternative fuel vehicle as either a dedicated vehicle or a dual fueled vehicle. Dedicated vehicles are defined in Section 32901(a)(7) as automobiles that operate only on an alternative fuel. Dual fueled vehicles are defined in Section 32901(a)(8) as follows:

(8) "dual fueled automobile" means an automobile that—

(A) is capable of operating on alternative fuel and on gasoline or diesel fuel;

(B) provides equal or superior energy efficiency, as calculated for the applicable model year during fuel economy testing for the United States Government, when operating on alternative fuel as when operating on gasoline or diesel fuel;

(C) for model years 1993–1995 for an automobile capable of operating on a mixture of an alternative fuel and gasoline or diesel fuel and if the Administrator of the Environmental Protection Agency decides to extend the application of this subclause, for an additional period ending not later than the end of the last model year to which section 32905(b) and (d) of this title applies, provides equal or superior energy efficiency, as calculated for the applicable model year during fuel economy testing for the Government, when operating on a mixture of alternative fuel and gasoline or diesel fuel containing exactly 50 percent gasoline or diesel fuel as when operating on gasoline or diesel fuel; and

(D) for a passenger automobile, meets or exceeds the minimum driving range prescribed under subsection (c) of this section.

Examination of this Section compels the conclusion that Congress intended that, for the purposes of Chapter 329's incentive program, dual fueled vehicles are, with one limited exception, vehicles operating either on an alternative fuel or a petroleum fuel but not on a mixture of the two. Subsection (A) describes a vehicle that operates on a petroleum or alternative fuel but not a mixture of both. Subsection (B) limits

dual fuel vehicles to those vehicles that offer equal or superior energy efficiency when operating on an alternative fuel, thereby indicating that the two modes of operation are exclusive. Subsection (C) indicates that vehicles operating on a mixture of alternative fuel and gasoline or diesel fuel may only be considered as dual fueled automobiles for the 1993–1995 model years (unless extended by the Administrator of the Environmental Protection Agency to the 2004 model year) when such vehicles offer equal or superior energy efficiency when operating on a 50/50 mix of alternative fuel and diesel fuel or gasoline. Therefore, the statutory text of Section 32901(A)(8) indicates that Congress did not intend to make incentives available for dual fueled vehicles operating on a mix of fuels except under the limited circumstances enunciated in 32901(a)(8)(C). As the period set by Congress in which such vehicles could be considered as dual fueled vehicles has expired and the EPA has not extended this period by regulation, NHTSA concludes that under Chapter 329 a dual fueled vehicle is one that is capable of operating on either an alternative fuel or gasoline or diesel fuel but not a mixture of both simultaneously.

HEVs that are not capable of operating on electric power alone cannot, under Chapter 329, be said to be dual fueled vehicles. Similarly, HEVs capable of operation in an electric-only mode but incapable of recharging their batteries from an external source are not dual fueled automobiles; a vehicle which is entirely dependent on a petroleum fuel for its motive power, regardless of whether electricity is used in the powertrain, is powered by petroleum. NHTSA concludes, therefore, that in order to qualify as a dual fueled vehicle under Chapter 329 an HEV must be capable of electric-only operation and must have the capability to recharge its batteries from an external source.

Sections 32901(c) and 32905 of Chapter 329 require the Secretary of Transportation to establish a minimum driving range for dual fueled passenger automobiles when operating on an alternative fuel. NHTSA does not agree with those commenters who suggest that the minimum driving range for HEV's, when operating on electricity alone, be set at zero. If the agency were to establish a minimum driving range of zero miles for HEV's, as some commenters suggest, such a driving range would be inconsistent with the Congressional command that a minimum driving range be established. While the EPACT amendments expressly relieved electric powered dual

fueled passenger automobiles from the 200 mile minimum range requirement imposed on other dual fuel passenger automobiles, Congress did not eliminate the range requirement altogether. Setting a minimum driving range of zero miles would result in a range requirement having no practical effect. Furthermore, as discussed in the NPRM, an HEV must be capable of some meaningful operation in the electric-only mode to allow measurement of its fuel economy when operating on that alternative fuel.

Mercedes argued against NHTSA's tentative conclusion that the proposed 17.7 mile range was compelled by sections 32904(c) and 32905. While agreeing that a combined urban/highway cycle must be used to determine the fuel economy of an HEV, Mercedes stated that section 32904(c) does not require the use of the established EPA test cycle. Noting that section 32904(c) enables the Administrator of the EPA to use an alternative procedure or procedures "that give comparable results," Mercedes suggests that manufacturers propose an alternative procedure that gives such comparable results so that HEVs need not have an electric-only range sufficient to complete one EPA driving cycle.

The agency agrees with Mercedes' contention that section 32904(c) authorizes the use of a fuel economy test other than the established EPA test cycle if such an alternative test provides comparable results. If such an alternative test existed, it might well be used to measure the fuel economy of HEVs. However, despite the suggestions made by DOE and Mercedes, the agency has determined that there is no test that is as yet sufficiently developed to measure the fuel economy of HEV's and provide comparable results to the existing EPA test. The (SAE) Hybrid Vehicle Test Procedure (SAE J1711) has been under development for several years and remains in draft form. The SAE procedure, as it presently exists, relies on the current EPA urban and highway cycles and proposes an electric-only mode of operation as one test option. As Chapter 329 requires that HEVs must be dual fueled vehicles capable of operation in an electric-only mode to qualify for CAFE incentives, use of the SAE procedure would not eliminate the need for a passenger automobile to travel a minimum distance—equivalent to one EPA urban cycle and one EPA highway cycle or both—to determine its electric-only fuel economy.

Mercedes also suggests that in the event that HEVs are unable to complete

the EPA driving cycle that manufacturers be afforded the opportunity to propose an alternative procedure that gives comparable results. NHTSA concludes that any test procedure for measuring HEV fuel economy must be uniform and applicable to all manufacturers. The SAE test, which is being developed but is not yet final, is an example of a uniform industry standard. Such a test might possess the uniformity required to serve as a standard for all vehicles in a certain class. The SAE test or any other industry developed test would not, however, necessarily be appropriate for measuring fuel economy for the purposes of the CAFE incentive program. Lastly, section 32904(c) directs that fuel economy testing be conducted by the EPA Administrator rather than the prospective beneficiaries of the incentive program.

The lack of an acceptable test procedure for determining electric-only fuel economy precludes consideration of the sliding scale minimum driving range suggested by DOE. Regardless of whether NHTSA has the authority to set the minimum driving range for HEVs along a range of values determined by the vehicle's measured fuel economy, the lowest minimum range suggested by DOE, 5 miles, would not be sufficient to allow fuel economy testing in the electric-only mode of operation.

NHTSA has concluded that the lack of any available test procedure other than the existing EPA urban/highway test requires that the minimum driving range for HEV's be set at a distance that will allow use of this test. In its comments, AAMA suggested that if a range other than zero miles is set, an HEV with an electric-only range should be required to have a range equivalent to 7.5 miles while traveling on the EPA urban cycle and 10.2 miles while traveling on the EPA highway cycle, with charging allowed prior to each test. NHTSA concurs with this view. Setting the minimum driving range at 7.5 miles, or one EPA urban cycle, for urban driving and 10.2 miles, or one EPA highway cycle, for highway driving, while allowing the vehicle to recharge prior to attempting each test, will allow manufacturers maximum flexibility in developing HEV's while satisfying the considerations set forth in section 32901(c)(3).

In the agency's view, setting a minimum driving range at 7.5 miles for urban use and 10.2 miles for highway use will provide incentives for manufacturers to develop HEVs while ensuring that these vehicles will meet the basic needs of consumers.

According to the 1990 National Personal

Transportation Survey (NPTS), a 6 to 10 mile range would be adequate for 77% of daily vehicle trips and 32% of daily vehicle miles traveled. Therefore, even with a range of 10.2 miles or 7.5 miles when operating on electricity alone, an HEV would be adequate for most of the daily vehicle trips taken by consumers.

### III. Final Rule

The agency is modifying its earlier proposal to establish a minimum driving range of 17.7 miles for HEVs when operating on electricity alone. A review of the comments submitted in response to that proposal indicates that HEV technology has not yet reached a point where vehicles can attain driving ranges even remotely comparable to those attainable by other alternative fuel vehicles. The agency is, however, rejecting the arguments of those commenters seeking to have the minimum driving range set at zero miles.

NHTSA notes that HEV's currently in development and in production outside the United States often use electric and internal combustion power either simultaneously or alone depending on specific needs at certain points while the vehicle is being driven. In these HEVs, the driver does not control when a particular power source is used nor is the vehicle intended to be operated on one power source alone for extended periods during normal operation.

The incentives contained in Chapter 329 to encourage the development of dual fuel vehicles are not applicable to these HEVs. The language and structure of the incentive provisions in Chapter 329 make it clear that the incentive program was intended to foster the development of vehicles that may operate on petroleum or an alternative fuel depending on the mode selected by the operator. There is no indication in the legislative history of the Alternative Motor Fuels Act that Congress at any time considered applying the Act to a vehicle that operates on petroleum at all times rather than being able to operate on the alternate fuel alone.

While HEVs, regardless of their configuration, appear to further many of the goals of the incentive program, the absence of provisions applicable to HEV's under the existing statutory scheme obliges NHTSA to restrict the availability of those incentives to vehicles that are capable of operating independently on electric power that is not generated by an on-board petroleum fueled engine. As the incentive program requires that the vehicle's fuel economy while operating on an alternative fuel must be measured by use of the EPA test procedure or its equivalent, any vehicle

qualifying for the incentive program must be capable of having its fuel economy measured while operating on an alternative fuel. NHTSA has concluded that at this time there is no fuel economy test available for measuring the fuel economy of HEV's while operating on electricity alone other than the existing EPA test cycle. Completion of this cycle normally requires that a vehicle travel two circuits totaling 17.7 miles—7.5 miles in an urban portion and 10.2 miles in the highway portion.

In the January 3, 1997, NPRM, the agency proposed that the minimum driving range for HEVs be set at 17.7 miles—the equivalent of one urban and one highway cycle. NHTSA has concluded, based on the comments submitted in response to the NPRM and the state of HEV development at this time, that this 17.7 mile range requirement is too stringent. Accordingly the agency has concluded that the driving range be set at the absolute minimum possible under existing test procedures by specifying a range that allows HEVs to be fully charged prior to completion of one EPA urban or highway cycle. Therefore, the minimum driving range established by this final rule is 7.5 miles while traveling on the EPA urban cycle and 10.2 miles while traveling on the EPA highway cycle, with charging allowed prior to each test.

This final rule also establishes a petition process by which manufacturers may apply for exemption from the minimum range requirement. These provisions remain unchanged from those contained in the agency's earlier proposal.

#### IV. Regulatory Impacts

##### A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This notice has not been reviewed under Executive Order 12866. NHTSA has considered the impact of this rulemaking action and has determined that the action is not "significant" under the Department of Transportation's regulatory policies and procedures. In this final rule, the agency is setting the minimum driving range for all dual fueled electric passenger vehicles at one EPA urban cycle after recharging and one EPA highway cycle after recharging. None of these changes will result in an additional burden on manufacturers. They do not impose any mandatory requirements but implement statutory incentives to encourage the manufacture of alternative fuel vehicles. For these reasons, NHTSA believes that any impacts on manufacturers are so

minimal as not to warrant preparation of a full regulatory evaluation.

##### B. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (Public Law 96-354) requires each agency to evaluate the potential effects of a final rule on small businesses. Establishment of a minimum driving range for HEVs affects motor vehicle manufacturers, few of which are small entities. The Small Business Administration (SBA) has set size standards for determining if a business within a specific industrial classification is a small business. The Standard Industrial Classification code used by the SBA for Motor Vehicles and Passenger Car Bodies (3711) defines a small manufacturer as one having 1,000 employees or less.

Very few single stage manufacturers of motor vehicles within the United States have 1,000 or fewer employees. Those that do are not likely to have sufficient resources to design, develop, produce and market an HEV. For this reason, NHTSA believes that this final rule would not have a significant impact on any small business. Moreover, production of passenger automobiles with the minimum ranges that are established by this regulation would be voluntarily undertaken in order to achieve beneficial CAFE treatment of those vehicles. Therefore, no significant costs are imposed on any manufacturers or other small entities.

##### C. National Environmental Policy Act.

The agency has also analyzed this rule for the purpose of the National Environmental Policy Act, and determined that it would not have any significant impact on the quality of the human environment. The minimum driving range established for HEVs in this rule is set at the lowest level possible to accommodate the present state of HEV technology and the existing statutory framework. It is anticipated that this may encourage continued development of HEVs. HEVs are, however, not being produced or imported at this time and it is not possible to determine the degree to which the establishment of the minimum driving range in this final rule will have on future production of HEVs.

##### D. Paperwork Reduction Act

The procedures in this final rule for passenger automobile manufacturers to petition for lower driving ranges are considered to be information collection requirements as that term is defined by the Office of Management and Budget (OMB) in 5 CFR part 1320. The information collection requirements for

part 538 will be submitted to the OMB, pursuant to the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

##### E. Executive Order 12612 (Federalism) and Unfunded Mandates Act

NHTSA has analyzed this final rule in accordance with the principles and criteria contained in E.O. 12612, and has determined that this rule would not have significant federalism implications to warrant the preparation of a Federalism Assessment.

In issuing this final rule establishing a minimum driving range for HEVs, the agency notes, for the purposes of the Unfunded Mandates Act, that this rule facilitates the granting of incentives to manufacturers choosing to produce qualified HEVs. The rule does not impose any costs.

##### F. Civil Justice Reform

This final rule does not have any retroactive effect. Under 49 U.S.C. 30103, whenever a Federal motor vehicle safety standard is in effect, a State may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the state requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. 49 U.S.C. 30161 sets forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

#### List of Subjects in 49 CFR Part 538

Administrative practice and procedure, Fuel economy, Motor vehicles, Reporting and recordkeeping requirements.

For the reasons set forth in the preamble, amend part 538 of title 49 of the Code of Federal Regulations as follows:

#### PART 538—MANUFACTURING INCENTIVES FOR ALTERNATIVE FUEL VEHICLES

1. The authority citation for part 538 continues to read:

**Authority:** 49 U.S.C. 32901, 32905, and 32906; delegation of authority at 49 CFR 1.50.

2. Amend § 538.5 by adding paragraph (b) to read as follows:

##### § 538.5 Minimum driving range.

\* \* \* \* \*

(b) The minimum driving range that a passenger automobile using electricity as an alternative fuel must have in order to be treated as a dual fueled automobile pursuant to 49 U.S.C. 32901(c) is 7.5 miles on its nominal storage capacity of electricity when operated on the EPA urban test cycle and 10.2 miles on its nominal storage capacity of electricity when operated on the EPA highway test cycle.

3. Revise § 538.6 to read as follows:

**§ 538.6 Measurement of driving range.**

The driving range of a passenger automobile model type not using electricity as an alternative fuel is determined by multiplying the combined EPA urban/highway fuel economy rating when operating on the alternative fuel, by the nominal usable fuel tank capacity (in gallons), of the fuel tank containing the alternative fuel. The combined EPA urban/highway fuel economy rating is the value determined by the procedures established by the Administrator of the EPA under 49 U.S.C. 32904 and set forth in 40 CFR part 600. The driving range of a passenger automobile model type using electricity as an alternative fuel is determined by operating the vehicle in the electric-only mode of operation through the EPA urban cycle on its nominal storage capacity of electricity and the EPA highway cycle on its nominal storage capacity of electricity. Passenger automobile types using electricity as an alternative fuel that have completed the EPA urban cycle after recharging and the EPA highway cycle after recharging shall be deemed to have met the minimum range requirement.

4. Add § 538.7 to read as follows:

**§ 538.7 Petitions for reduction of minimum driving range.**

(a) A manufacturer of a model type of passenger automobile capable of operating on both electricity and either gasoline or diesel fuel may petition for a reduced minimum driving range for that model type in accordance with paragraphs (b) and (c) of this section.

(b) Each petition shall:

(1) Be addressed to: Administrator, National Highway Traffic Safety Administration, 400 Seventh Street SW, Washington, DC 20590.

(2) Be submitted not later than the beginning of the first model year in which the petitioner seeks to have the model type treated as an electric dual fueled automobile.

(3) Be written in the English language.

(4) State the full name, address, and title of the official responsible for preparing the petition, and the name and address of the petitioner.

(5) Set forth in full data, views, and arguments of the petitioner, including the information and data specified in paragraph (c) of this section, and the calculations and analyses used to develop that information and data. No documents may be incorporated by reference in a petition unless the documents are submitted with the petition.

(6) Specify and segregate any part of the information and data submitted under this section that the petitioner wishes to have withheld from public disclosure in accordance with part 512 of this chapter.

(c) Each petitioner shall include the following information in its petition:

(1) Identification of the model type or types for which a lower driving range is sought under this section.

(2) For each model type identified in accordance with paragraph (c)(1) of this section:

(i) The driving range sought for that model type.

(ii) The number of years for which that driving range is sought.

(iii) A description of the model type, including car line designation, engine displacement and type, electric storage capacity, transmission type, and average fuel economy when operating on:

(A) Electricity; and

(B) Gasoline or diesel fuel.

(iv) An explanation of why the petitioner cannot modify the model type so as to meet the generally applicable minimum range, including the steps taken by the petitioner to improve the minimum range of the vehicle, as well as additional steps that are technologically feasible, but have not been taken. The costs to the petitioner of taking these additional steps shall be included.

(3) A discussion of why granting the petition would be consistent with the following factors:

(i) The purposes of 49 U.S.C. chapter 329, including encouraging the development and widespread use of electricity as a transportation fuel by consumers, and the production of passenger automobiles capable of being operated on both electricity and gasoline/diesel fuel;

(ii) Consumer acceptability;

(iii) Economic practicability;

(iv) Technology;

(v) Environmental impact;

(vi) Safety;

(vii) Driveability; and

(viii) Performance.

(d) If a petition is found not to contain the information required by this section, the petitioner is informed about the areas of insufficiency and advised that the petition will not receive further

consideration until the required information is received.

(e) The Administrator may request the petitioner to provide information in addition to that required by this section.

(f) The Administrator publishes in the **Federal Register** a notice of receipt for each petition containing the information required by this section. Any interested person may submit written comments regarding the petition.

(g) In reaching a determination on a petition submitted under this section, the Administrator takes into account:

(1) The purposes of 49 U.S.C. chapter 329, including encouraging the development and widespread use of alternative fuels as transportation fuels by consumers, and the production of alternative fuel powered motor vehicles;

(2) Consumer acceptability;

(3) Economic practicability;

(4) Technology;

(5) Environmental impact;

(6) Safety;

(7) Driveability; and

(8) Performance.

(h) If the Administrator grants the petition, the petitioner is notified in writing, specifying the reduced minimum driving range, and specifying the model years for which the reduced driving range applies. The Administrator also publishes a notice of the grant of the petition in the **Federal Register** and the reasons for the grant.

(i) If the Administrator denies the petition, the petitioner is notified in writing. The Administrator also publishes a notice of the denial of the petition in the **Federal Register** and the reasons for the denial.

Issued on: November 24, 1998.

**Ricardo Martinez,**  
Administrator.

[FR Doc. 98-31779 Filed 11-30-98; 8:45 am]

BILLING CODE 4910-59-P

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 216

[Docket No. 960318084-8274-04; I.D. 071596C]

RIN 0648-AG55

#### Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Naval Activities

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Final rule.