

\$15 million, businesses with gross annual revenues of more than \$15 million but not more than \$40 million and businesses with gross revenues of more than \$40 million but not more than \$75 million. We will use these definitions for estimating the potential number of entities choosing to partition or disaggregate or who may acquire licenses through partitioning and disaggregation that are small businesses.

It is not possible to predict how many LMDS licensees meeting one of the above definitions will be successful at auction and subsequently decide to partition or disaggregate. The Commission plans to issue 2 licenses each for 493 Basic Trading Areas (BTAs). Thus, 986 licenses will be made available for authorization. It is expected that a significant number of successful bidders in the LMDS auction will satisfy one of the above definitions. There is only one company, CellularVision USA, Inc. (CellularVision), that is currently providing LMDS video services. Although the Commission does not collect data on annual receipts, it is assumed that CellularVision is a small business under all of the above outlined definitions. Similarly, it is not possible to determine how many of those entities obtaining licenses through partitioning and disaggregation will meet one of the above definitions. However, it is expected that many entities meeting one of the above definitions will use partitioning and disaggregation as a means to obtain LMDS licenses at lower costs.

D. Summary of Projected Reporting, Recordkeeping and Other Compliance Requirements

The rules adopted in the *Fourth R&O* will impose reporting and recordkeeping requirements on small businesses seeking licenses through partitioning and disaggregation. The information requirements will be used to determine whether the licensee is a qualifying entity to obtain a partitioned license or disaggregated spectrum. This information will be given in a one-time filing by any applicant requesting such a license. The information will be submitted on the FCC Form 702 which is currently in use and has already received Office of Management and Budget clearance. The Commission estimates that the average burden on the applicant is three hours for the information necessary to complete these forms. The Commission estimates that 75 percent of the respondents (which may include small businesses) will contract out the burden of responding. The Commission estimates that it will take approximately 30 minutes to coordinate information with those contractors. The remaining 25 percent of respondents (which may include small businesses) are estimated to employ in-house staff to provide the information.

E. Steps Taken To Minimize Burdens on Small Entities

The rules adopted in the *Fourth R&O* are designed to implement Congress' goal of giving small businesses, as well as other entities, the opportunity to participate in the provision of spectrum-based services and are consistent with the Communications Act's

mandate to identify and eliminate market entry barriers for entrepreneurs and small businesses in the provision and ownership of telecommunications services.

Allowing non-restricted partitioning and disaggregation will facilitate market entry by parties who may lack the financial resources for participation in auctions, including small businesses. Some small businesses may have been unable to obtain LMDS licensees through auction due to high bidding. By allowing open partitioning and disaggregation, small businesses will be able to obtain licenses for smaller service areas and smaller amounts of spectrum at presumably reduced costs, thereby providing a method for small businesses to enter the LMDS marketplace.

Allowing geographic partitioning of LMDS licenses by service areas defined by the parties will provide an opportunity for small businesses to obtain partitioned LMDS license areas designed to serve smaller, niche markets. This will permit small businesses to enter the LMDS marketplace by reducing the overall cost of acquiring a partitioned LMDS license.

Allowing disaggregation of spectrum in any amount will also promote participation by small businesses who may seek to acquire a smaller amount of LMDS spectrum tailored to meet the needs of their proposed service.

F. Significant Alternatives Considered and Rejected

The Commission considered and rejected the following alternative proposals concerning LMDS partitioning and disaggregation.

The Commission rejected a plan set forth by WebCel Communications, Inc. (WebCel). Instead of requiring all partitioning and disaggregation transactions to comply with our existing assignment procedures, WebCel suggested that the Commission permit parties to enter into agreements to partition and disaggregate without prior Commission approval so long as notification is given to the Commission by the original LMDS licensee. The Commission considers partitioning and disaggregation transactions to be essentially partial assignments of license, and Commission review and approval is necessary to ensure compliance with its rules. Thus, the Commission concluded that WebCel's proposed model is not an appropriate construct for characterizing partitioning and disaggregation transactions.

Finally, the Commission rejected a suggestion by CellularVision that LMDS partitionees and disaggregatees should be allowed to qualify for a renewal expectancy which is based upon their reduced license period. The Commission found that this approach would contradict its construction requirements for LMDS partitionees and disaggregatees which require these entities to meet a separate substantial service requirement by the end of their license term. Partitionees and disaggregatees are not permitted to meet a scaled-down substantial service construction requirement simply because of the fact that they had a license term of less than ten years. The Commission found that, by requiring LMDS partitionees

and disaggregatees to meet the same substantial service requirement for renewal expectancy as all other licensees, LMDS licensees will be encouraged to quickly develop their markets and fully utilize their available spectrum.

G. Report to Congress

The Commission shall include a copy of this Final Regulatory Flexibility Analysis, along with this *Fourth R&O*, in a report to be sent to Congress pursuant to the Small Business Regulatory Enforcement Fairness Act of 1996, 5 U.S.C. 801(a)(1)(A).

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DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 553

[NHTSA-98-3815]

RIN 2127-AG62

Rulemaking Procedures

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

ACTION: Final rule.

SUMMARY: This final rule reaffirms the agency's policy of focusing its international harmonization activities on identifying and adopting those foreign vehicle safety standards that clearly reflect best practices, i.e., that require significantly higher levels of safety performance than the counterpart U.S. standards. This final rule also announces the agency's policy regarding those instances in which the agency's comparison of standards indicates that the safety performance required by a foreign standard is not significantly higher, but is still better than or at least as good as that required by the counterpart U.S. standard.

To aid in implementing these policies, this final rule amends the agency's regulation concerning rulemaking procedures to set forth the process that the agency will use in comparing U.S. and foreign vehicle safety standards and in determining what rulemaking response, if any, is appropriate. The agency will assess whether the safety performance of vehicles or equipment manufactured under the foreign standard is better than or at least functionally equivalent to that of vehicles or equipment manufactured under the U.S. standard, i.e., whether the vehicles or equipment manufactured under the foreign standard produce more or at least as many safety benefits

as those produced by the vehicles or equipment manufactured under the U.S. standard.

This final rule also emphasizes that the agency's policy is to deny any rulemaking petition seeking to have a foreign standard added to its counterpart U.S. standard as a compliance alternative or to harmonize the U.S. standard with the foreign standard if the petition does not contain an analysis of the relative benefits of the two standards. This policy is necessary to minimize the impact that NHTSA's consideration of such rulemaking petitions might otherwise have on the agency's use of its resources to upgrade its safety standards.

DATES: Effective Date: The amendments become effective on May 13, 1998.

Petitions for reconsideration: Petitions for reconsideration must be received by June 29, 1998.

ADDRESSES: Petitions should refer to the docket and notice number of this notice and be submitted to: The Administrator, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: For technical and policy issues: Ms. Julie Abraham, Office of International Harmonization, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590. Telephone: (202) 366-2114. Fax: (202) 366-2106.

For legal issues: Rebecca MacPherson, Attorney Advisor, Office of Chief Counsel, NCC-20, National Highway Traffic Safety Administration, 400 Seventh Street, SW, Washington, DC 20590. Telephone: (202) 366-2992. Fax: (202) 366-3820.

SUPPLEMENTARY INFORMATION:

Table of Contents

- I. Overview
- II. Guiding principles for the harmonization of standards and the amendment of standards based on claims of functional equivalence
- III. Policy statement concerning functional equivalence
 - A. Background
 - B. November 1996 request for comments
 - C. Summary of oral and written comments on November 1996 notice
 - D. Pending rulemaking petitions based on claims of functional equivalence
 - E. Policy statement
 - 1. General description
 - 2. The process as it will be applied in the United States
- IV. Draft UN/ECE agreement on global technical regulations; public participation
- V. Rulemaking analyses and notices
 - A. Executive Order 12866 and DOT regulatory policies and procedures

- B. Regulatory Flexibility Act
 - C. National Environmental Policy Act
 - D. Executive Order 12612 (Federalism)
- Regulatory text

I. Overview

This final rule reaffirms the agency's policy of focusing its international harmonization activities on identifying and adopting those foreign vehicle safety standards that clearly reflect best practices, i.e., that require significantly higher levels of safety performance than the counterpart U.S. standard. NHTSA's policy is to pick the best standard in those instances. This final rule also announces the agency's policy regarding instances in which the agency's comparison of standards indicates that the safety performance required by a foreign standard is not significantly higher, but is still better than or at least as good as that required by the counterpart U.S. standard. In those instances, the agency will consider the possibility of amending the U.S. standard to allow manufacturers to comply with either standard or to harmonize the U.S. standard with the foreign standard.

To aid in implementing these policies, this final rule amends the agency's regulation concerning rulemaking procedures by adding an appendix that sets forth the process that the agency will use in comparing U.S. and foreign vehicle safety standards and in determining what rulemaking response, if any, is appropriate. In the first instance, NHTSA will follow this process in determining whether to commence a rulemaking proceeding on the basis that the mandatory requirements of a foreign motor vehicle safety standard appear to be better than or at least functionally equivalent to those of a Federal Motor Vehicle Safety Standard (FMVSS). If the agency commences a rulemaking proceeding, it will follow the same process in comparing the safety performance of vehicles or equipment produced under the two standards, and then in determining whether the foreign standard is, in fact, better than or at least functionally equivalent to the U.S. standard. This determination would be made by assessing whether the vehicles or equipment manufactured under the foreign standard produce more or at least as many safety benefits as the vehicles or equipment manufactured under the U.S. standard. This assessment would be made on the basis of real world data concerning benefits, or, if such data are unavailable, on the basis of either compliance test data or data generated by additional research and development.

This final rule emphasizes that there will be appropriate opportunities for public participation. Any rulemaking notice that proposes to amend a safety standard and that is based on a tentative determination of functional equivalence will be subject to the notice and comment requirements of the Administrative Procedure Act and all applicable substantive statutory criteria, most notably the requirement that the standards meet the need for motor vehicle safety.

This final rule also emphasizes that the agency's policy is to deny any rulemaking petition seeking to have a foreign standard added to its counterpart U.S. standard as a functionally equivalent compliance alternative or to harmonize the U.S. standard with the foreign standard if the petitioner does not provide an analysis, based to the extent practicable on crash data, comparing safety performance under the two standards and supporting the making of a determination that the foreign standard is, in fact, better or at least functionally equivalent. This policy is necessary to minimize the impact that NHTSA's consideration of rulemaking petitions involving such functional equivalence claims might otherwise have on the agency's use of its finite resources to upgrade its safety standards.

Finally, since the agency's priority in international harmonization is to focus on those foreign safety standards that represent best practices, NHTSA will give priority to petitions requesting the upgrading of one of its standards to the level of a superior foreign standard over petitions simply asking the agency to add a compliance alternative, if resource limitations necessitate making a choice between competing petitions in granting or processing them.

II. Guiding Principles for the Harmonization of Standards and the Amendment of Standards Based on Functional Equivalence

At the April 1996 Transatlantic Automotive Industry Conference on International Regulatory Harmonization¹ in Washington, DC,

¹ At that conference, the United States-European Union automotive industry met and developed recommendations to the United States and European Union on international harmonization and the intergovernmental regulatory process needed to achieve such harmonization. One of the recommendations was to develop a process for agreeing upon "functional equivalence" of dissimilar existing standards addressing the same aspect of performance. Martin Bangemann, the European Industry Commissioner on the European Commission, said at the conference that a first step toward achieving common standards between the

Continued

NHTSA emphasized that three goals must remain of primary importance as the agency explores the possibility of harmonizing its standards² with those of other countries and regions in appropriate circumstances. First, the agency must ensure that there is no degradation of the safety provided by a regulation as a result of achieving harmonization. Second, the agency must preserve the quality and transparency of its regulatory process by inviting all interested parties to be heard and duly considered, including the general public. Third, the agency must preserve its ability to respond, through future rulemaking, to changing safety technology and problems and make appropriate improvements in its safety standards. NHTSA noted that the same goals must be met by the agency in considering whether a foreign motor vehicle safety standard is better than or at least functionally equivalent to its counterpart FMVSS.

This notice reaffirms those goals and emphasizes the agency's top priority in its vehicle safety rulemaking activities will remain the development and adoption of more effective and beneficial safety standards.

III. Policy Statement Concerning Functional Equivalence

A. Background

The harmonization of product standards has become a matter of increasing importance in the last several decades. The manufacturing and marketing of products have become increasingly globalized. In response to that trend, countries and regions have moved to adjust and coordinate their regulatory practices to the extent consistent with consumer protection policies. Efforts to coordinate regulatory practices on a global scale have resulted in several international agreements that seek to promote and guide the process of harmonization, while taking care to preserve the right of countries and regions to adopt and maintain standards they believe necessary to address safety, environmental and other needs within their respective jurisdictions.

The GATT Agreement on Technical Barriers to Trade (TBT), known as the Standards Code, was negotiated during the Tokyo Round of General Agreement on Tariffs and Trade Multinational

Trade Negotiations, and implemented in this country by the Trade Agreements Act of 1979 (Pub. L. 103-465; 19 U.S.C. 2531-2582). A new TBT agreement was reached as a result of the General Agreement on Tariffs and Trade Uruguay Round of Multinational Trade Negotiations. The Uruguay Round Agreements, which were concluded in early 1994, established the World Trade Organization. Article 2.7 of the new TBT Agreement provides that members of the World Trade Organization:

Shall give positive consideration to accepting as *equivalent* technical regulations of other Members, even if these regulations differ from their own, *provided they are satisfied that these regulations adequately fulfill the objectives of their own regulations.* (Emphasis added.)

At the Transatlantic Business Dialogue Conference (TABD), held in Seville, Spain in late 1995, participants made a series of joint recommendations aimed at building a stronger framework for trade between the United States and the European Union. Later that year, at the Madrid Summit, President Clinton signed a joint United States-European Union "New Transatlantic Agenda," which was based in part on the TABD recommendations. The Agenda called for strengthening regulatory cooperation and addressing technical and non-tariff barriers to trade resulting from divergent regulatory processes. Within the framework of action established by the Agenda, a Joint United States-European Union Action Plan was issued. Among its goals are facilitating international regulatory harmonization, taking into account the respective policies of the United States and European Union concerning safety and environmental protection. The April 1996 Transatlantic Automotive Industry Conference on International Regulatory Harmonization, mentioned above in part I, built on the TABD recommendations and Action Plan by generating specific recommendations regarding harmonization and regulatory coordination in the automotive sector.

At the 15th International Technical Conference on Enhanced Safety of Vehicles (ESV), held in May 1996 in Melbourne, Australia, participating countries adopted the International Harmonized Research Agenda (IHRA). One of the six research priorities was developing the technical and scientific aspects of an acceptable model for assessing relative benefits and determining the functional equivalence of existing regulatory requirements. The United States and Australia were designated as the lead countries for this developmental activity. The other

research priorities seek improvements in such areas of vehicle safety as biomechanics, advanced offset frontal crash protection, vehicle compatibility, Intelligent Transportation Systems (ITS), and pedestrian safety.

In response to these events, NHTSA published a notice requesting comments on the recommendations made by the United States/European Union automotive industry at the April 1996 Transatlantic Automotive Industry Conference on International Regulatory Harmonization in Washington, D.C. (61 FR 30657; June 17, 1996). The agency stated that the comments would assist it in determining how to respond to those recommendations as well as ensuring that harmonization does not result in any degradation of safety or environmental protection in the United States. One of the specific requests was for comments on issues relating to the development of a process for determining the functional equivalence of the vehicle safety standards of different countries and regions.

Written comments on the June 1996 notice were submitted by the American Automobile Manufacturers Association (AAMA), Association of International Automobile Manufacturers, Inc., (AIAM), Truck Manufacturers Association (TMA), Coalition of Small Volume Automobile Manufacturers (COSVAM), Coalition for Vehicle Choice (CVC), Consumers Union (CU), Center for Auto Safety, American Insurance Association (AIA), Insurance Institute for Highway Safety (IIHS), Congressman Tom Sawyer, and Advocates for Highway Safety (Advocates).

The commenters focused their comments on the general issue and consequences of standards harmonization. Many emphasized that the agency should not permit any reduction in safety to occur as a result of any rulemaking based on a determination of functional equivalence or any other rulemaking seeking to harmonize standards. Both manufacturers' associations and public interest groups stated that a foreign standard should be determined to be at least functionally equivalent to a counterpart U.S. standard only if the foreign standard provides at least the same level of protection. In no event, IIHS and several consumers groups said, should harmonization result in the adoption of lowest common denominator standards. These groups urged that the agency focus its harmonization efforts on raising the level of U.S. standards to the level of the best practices worldwide. AIAM urged the agency not to adopt a rigid

United States and the European Union could be an intermediate one of mutual recognition of another country's standards, provided that they were determined to be at least functionally equivalent.

² As used in this notice, the term "standard" refers to mandatory requirements and thus has the same meaning given the term "technical regulation" in Annex 1 to the World Trade Organization Technical Barriers to Trade Agreement.

definition of functional equivalence and made several suggestions for promoting the future evolution of the concept of functional equivalence.

B. November 1996 Request for Comments

On November 14, 1996, NHTSA published in the **Federal Register** a generic flowchart describing a process for use by the regulatory agencies of the United States and other countries in making determinations of functional equivalence of vehicle safety standards (61 FR 58362). The agency developed the flowchart based on the comments on the June notice and other available information. The November notice announced plans for a January 1997 public workshop to discuss the flowchart and solicited the submission of written comments following the workshop. The agency said that the public input would assist the agency in deciding its future course of action regarding international harmonization, specifically the determination of functional equivalence as outlined in the International Harmonized Research Agenda (IHRA). The IHRA was established in meetings held in conjunction with the May 1996 International Technical Conference on the Enhanced Safety of Vehicles (ESV) in Australia. The notice also announced that NHTSA would be developing requirements and procedures regarding petitions for rulemaking based on a claim of functional equivalency.

C. Summary of Oral and Written Comments on November 1996 Notice

The January 1997 workshop was attended by representatives of U.S. and Canadian governmental agencies, motor vehicle manufacturers, equipment manufacturers, insurance groups and consumer interest groups. The attendees included the U.S. Environmental Protection Agency, U.S. Department of Commerce, Transport Canada, Industry Canada, AAMA, AIAM, Association des Constructeurs Européens d'Automobiles (ACEA), Ford, General Motors, Chrysler, Toyota, Land Rover, Volkswagen, Mitsubishi, BMW, Motor Vehicle Equipment Manufacturers Association, Lear, Jetro, Sierra Products, Truck-Lite, Auto Occupant Restraint Council, Rubber Manufacturers Association, Transportation Safety Equipment Institute, IIHS, Advocates, and American Insurance Association (AIA).

After the workshop, the agency received six written comments on the November 1996 notice. The commenters were American Suzuki Motor Corporation (Suzuki), CU, Advocates, Sierra Products, Inc., Sekurit Saint-

Gobain, and Nissan North America, Inc. (Nissan).

The highlights of the oral and written comments are set forth below.

Nissan expressed concern that the proposed process may rely too much on estimates of real world safety benefits and compliance test data as bases for determining functional equivalence:

In most cases, such data would have to be developed specially to enable a comparison, and it would be rather difficult for most of the countries to develop them through research, because of cost, limited resources, etc. The approach of relying primarily on a comparison of safety benefits would not be a realistic means of demonstrating functional equivalence* * * .

Suzuki expressed a similar concern. In a related comment, Chrysler stated that quantification of real world safety benefits may be impossible in the case of the crash avoidance standards. The relative merits of two different crash avoidance standards addressing the same safety need would be much easier to assess in terms of their impact on vehicle or equipment performance (an input measure) instead of their impact on the number of crashes or of deaths and injuries (an output measure).

AIAM stated that the proposed process fails to include consideration of what it termed the "same design approach." AIAM noted that the AAMA functional equivalence process includes that concept. That organization argued that, given difficulty of measuring output, i.e., benefits, NHTSA should consider input, as represented by similarity of design approaches.

Advocates said that the process should include a statement of NHTSA's commitment to upgrading the FMVSSs when the agency determines that the benefits of a foreign standard are greater than those of the counterpart FMVSS:

* * * if the FE process is to provide any significant safety benefit to the public, upgrading safety standards must be treated as a mandatory requirement, not as a secondary or optional activity.

CU supported the concept of a functional equivalence determination process that would result in both increased safety and increased efficiency and stated that the proposed process could be an appropriate procedure toward that end. IIHS and AIA agreed that the ultimate goal should be higher standards.

Commenters differed as to whether the issues of determining functional equivalence and possibly increasing the stringency of a FMVSS should be considered in the same rulemaking proceeding. Advocates said that if the agency determines that a foreign

standard offers greater benefits, the agency should conduct a single rulemaking proceeding that results in upgrading the counterpart FMVSS. NHTSA should not, according to that group, conduct two separate, sequential rulemaking proceedings: the first one adding the foreign standard as a compliance alternative and a subsequent one upgrading that FMVSS. However, AAMA and Land Rover argued that there should be two separate rulemaking proceedings.

Advocates implicitly recognized that the upgrading of a FMVSS might not be appropriate in every instance in which the agency concludes that the counterpart foreign standard yields greater benefits. That organization noted that the upgrading of a FMVSS would be subject to public comment and other aspects of the typical rulemaking proceeding. Among other things, the agency would need to conduct a cost-benefit analysis to determine whether an upgrade would be worthwhile. Land Rover and Sierra Products agreed. Further, Advocates said that if NHTSA decides not to propose to upgrade a FMVSS found by the agency to yield fewer benefits than a counterpart foreign standard, the agency should explain why upgrading is not warranted.

AIAM, Ford and Advocates expressed support for the making of "qualified functional equivalence determinations." As described by Advocates, such a determination would be made when NHTSA finds:

That a particular foreign standard would be equivalent to the FMVSS counterpart if an additional requirement contained in the FMVSS is also required. This qualified acceptance is appropriate where the two standards are functionally equivalent in terms of the estimated safety benefits, but the FMVSS standard contains a specific provision or practice that is not required under the foreign standard.

Advocates expressed concern that, by focusing on the level of safety benefits of counterpart standards, the process might lead the agency to overlook important differences between standards:

Advocates is concerned that distinctly different standards with important safety differences will be treated as equivalent simply because the overall estimate of benefits is comparable (or one is greater than the other). A process that is focused only on a single performance measure, i.e., total quantitative safety benefit, will overlook important qualitative differences in approach that benefit different vehicle occupants, benefit occupants in different ways, or accrue to non-occupants, i.e., pedestrians.

Finally, Advocates urged that the agency adopt a policy ensuring that

rulemaking petitions based on a claim of functional equivalence will be granted only when it will not interfere with other agency activities and not delay other pending rulemakings. To that end, that organization urged that petitioners be required to submit sufficient data and analysis to support their petitions. Transport Canada and IIHS expressed similar concerns.

D. Pending Rulemaking Petitions Based on a Claim of Functional Equivalence

NHTSA notes that it has already received several petitions based on claims of functional equivalence. The AAMA has already petitioned the agency to amend several of the FMVSSs, on the basis that their European counterparts are functionally equivalent, to provide the alternative of complying with those European standards. The FMVSSs include FMVSS 103, Windshield Defrosting and Defogging Systems; FMVSS 104, Windshield Wiping and Washing Systems; the headlamp concealment device requirements in FMVSS 108, Lamps, Reflective Devices, and Associated Equipment; FMVSS 202, Head Restraints; and FMVSS 209, Seat Belt Assemblies. Noting that the petitions were not accompanied by sufficient data and analysis, the agency informed the petitioner that additional materials were needed in order to assess the merits of the petition.

Additionally, the AAMA, AIAM and IIHS have jointly petitioned the agency to amend FMVSS 214, Side Impact Protection, to give vehicle manufacturers the option of complying with either current FMVSS 214 or the counterpart European standard during a 7-year period. The petition also requested that, at the end of the 7-year period, compliance with the European standard become mandatory.

E. Policy Statement

1. General Description

NHTSA is amending Part 553, Rulemaking Procedures, by adding a new Appendix B setting forth the process it intends to follow in considering whether to commence a rulemaking proceeding based on a claim that a foreign motor vehicle safety standard is better than or at least functionally equivalent to its counterpart among the FMVSSs and in making determinations about relative benefits and functional equivalence. The process is set forth in the form of a flowchart and accompanying explanation.

The agency believes that the process in Appendix B meets the concerns

expressed at the public workshop and in the written public comments. The process is essentially the same as the generic process published by the agency in November 1996 for public comment, except for several clarifying or simplifying changes.

The generic process, which refers to "Country A" and "Country B," has been modified for the purpose of its application by this country. The reference to "Country A" has been replaced by a reference to "NHTSA," so that the process as adopted in this final rule refers to "NHTSA" and "Country B." The rulemaking box, formerly located in the upper left corner of the chart, has been combined with a similar box located in the upper center of the chart. The agency has eliminated the references to three notes formerly included in the explanation. Those notes became unnecessary after the agency expanded the discussion within the rulemaking box and the discussion elsewhere in the explanation of the chart. As recognized at the public workshop, any rulemaking to upgrade a FMVSS would have to satisfy statutory criteria for establishing a FMVSS and would be subject to the provisions of Executive Order 12866 regarding the analysis of costs and benefits. This has been reflected in discussion in the rulemaking box in the upper center of the chart. Per a request by AAMA, descriptive titles have been added to some of the key decision points in the chart.

Neither the chart nor its explanation has been modified to include a reference to the "design approach" of determining functional equivalence, as suggested by AIAM. As agency personnel noted at the workshop, consideration of compliance test data would be necessary to determine objectively whether various design approaches are really the same. The chart already provides for consideration of compliance test data as a method of determining relative benefits and functional equivalence.

The explanation that accompanies the chart in Figure 1 has been expanded to describe how the functional equivalence process would affect each stage of a rulemaking proceeding. In response to concerns expressed about the suitability of the process for comparing crash avoidance standards, the explanation has been revised to note that the types of benefits examined in comparing two standards might differ depending on whether the standards are crash avoidance standards or crashworthiness standards. Translating differences in performance (an input measure) into numbers of crashes or numbers of deaths and injuries (output measures) is

more difficult in the case of crash avoidance standards. Thus, while the relative benefits of two crashworthiness standards would typically be assessed in terms of their impacts on deaths and injuries in crashes, the relative merits of two different crash avoidance standards might well be assessed in terms of their impact on measured vehicle or equipment performance.

The explanation accompanying the flowchart also emphasizes the flexibility of the process that will be employed by this agency. For example, if one type of data specified in the flowchart were unavailable, a petitioner's request for a functional equivalency determination will not automatically be rejected. Instead, the petitioner should submit analyses based on the types of specified data which either are available or can be produced by means of additional testing or research that can be performed within a reasonable time and at a reasonable cost.

2. The Process as it Will Be Applied in the United States

- Determining whether to grant the petition. NHTSA is announcing in this notice that it will not grant any rulemaking petition seeking to have a foreign standard added to its counterpart U.S. standard as a compliance alternative on the basis that the foreign standard is better than or at least functionally equivalent to the U.S. standard or to harmonize the U.S. standard with the foreign standard, if the petition is not accompanied by an analysis of the relative benefits of the two standards. The analysis must be based, to the extent practicable, on crash data, compare safety performance under the two standards, and support the making of a determination, in accordance with the process described in the flowchart in Figure 1 of Appendix B to Part 553 of Title 49 CFR, that the foreign standard is better or at least functionally equivalent to the U.S. standard. This policy is necessary to preserve the agency's ability to focus its resources on its priorities. Part 552 of Title 49 CFR, Petitions for rulemaking, defect and noncompliance orders, expressly provides that, in making a decision whether to grant a petition for rulemaking, the agency may consider a variety of factors, include agency priorities and allocation of agency resources. See Section 552.8.

Upon receiving a sufficiently supported rulemaking petition asking NHTSA to amend a FMVSS based on a claim that a foreign standard is better than or at least functionally equivalent to that FMVSS, the agency will consider the merits of the petition in accordance

with Part 552 and with the functional equivalence process set forth in the flowchart. If it appears that there is reason to believe that the foreign standard provides greater or at least equivalent safety benefits than the FMVSS, and if adding an alternative compliance alternative does not appear likely to create an unacceptable enforcement burden, the agency will likely grant the petition and commence a rulemaking proceeding.

However, the agency emphasizes that its priority with respect to international harmonization is identifying and adopting those foreign safety standards that represent best practices. Accordingly, if resource limitations make it necessary to choose between competing petitions, the agency would give priority to granting a petition asking the agency to upgrade one of its standards to the level of a superior foreign standard over granting another petition simply asking the agency to add a compliance alternative. The agency would follow the same priorities in processing the petitions it grants. Finally, NHTSA notes that the granting of a petition does not signify that the rule in question will be issued, but rather that the petition appears to merit a fuller comparison of performance under the two standards and, if appropriate, the development of a proposal for public comment.

- Development of proposal. If NHTSA grants the petition, it will proceed, as in any other rulemaking regarding the FMVSSs, to determine whether amending a FMVSS would be appropriate under the applicable statutory criteria in chapter 301 of title 49, U.S.C. Following the process set forth in the flowchart, the agency will use the analysis and data submitted by the petitioner, supplemented by data from other sources, to compare performance and tentatively determine whether the foreign standard specified in the petition is better than or at least functionally equivalent to the FMVSS specified in the petition.

The comparison could have a variety of possible outcomes:

- *The comparison may indicate that the foreign standard's safety benefits are less than those of the counterpart FMVSS.* If the comparison indicates that the foreign standard results in fewer safety benefits than the counterpart FMVSS, NHTSA will terminate the rulemaking proceeding.

- *The comparison may indicate that the foreign standard's safety benefits are approximately equal to those of the counterpart FMVSS.* If the comparison indicates that the safety benefits of a foreign standard are approximately

equal to those of a FMVSS, NHTSA will tentatively determine that the foreign standard is at least functionally equivalent to the FMVSS and take one of two possible steps in most instances. One possibility is that it will develop a notice of proposed rulemaking (NPRM) proposing to amend the FMVSS by adding the foreign standard as an alternative to the existing requirements of the FMVSS.³ The other possibility is that the agency will develop an NPRM proposing to harmonize the FMVSS with the foreign standard. The second approach would enable NHTSA to maintain a single set of requirements and test procedures in its standard, thereby minimizing any drain on its enforcement resources. An additional possibility that might be considered in some instances would be "qualified functional equivalence." Under this third approach, the agency would regard Country B's standard to be functionally equivalent if it is supplemented by a specified requirement in the counterpart FMVSS.

- *The comparison may indicate that the foreign standard's safety benefits are greater than those of the counterpart FMVSS.* If the comparison indicates that the foreign standard results in greater safety benefits than the counterpart FMVSS, and if upgrading the FMVSS is appropriate, based on the incremental benefits and costs and applicable statutory criteria, NHTSA will tentatively determine that the foreign standard has greater benefits and develop an NPRM proposing to upgrade the requirements of the FMVSS to the level of those in the foreign standard. The upgrading could be accomplished in a number of ways, such as by increasing the stringency of the requirements presently in the FMVSS or by replacing the provisions of the FMVSS with those of the foreign standard. If upgrading is not appropriate, NHTSA may propose to add the foreign standard to the FMVSS as an alternative compliance option to the existing requirements of the FMVSS. The proposal of such an option would include a statement of the basis for the agency's conclusion that upgrading the FMVSS is inappropriate.

If NHTSA issues an NPRM, it will request comment on the tentative determination and the proposed amendment.

- *Final Rule Amending FMVSS.* Any final decision to make a determination regarding relative benefits and

functional equivalency and to amend the FMVSS will be made in accordance with the process in the flowchart and applicable law and only after careful consideration and analysis of the public comments.

IV. Draft UN/ECE Agreement on Global Technical Regulations; Public Participation

To provide for the development of global technical regulations for motor vehicles and motor vehicle equipment, the United States, the European Union, and Japan reached accord in March of this year on a text of an Agreement on Global Technical Regulations to supplement the existing revised 1958 United Nations/Economic Commission for Europe Agreement providing for uniform technical prescriptions for wheeled vehicles, equipment, and parts, as well as the conditions for reciprocal recognition of type approvals.⁴ The draft text is subject to a final round of comment by governments participating in the UN/ECE Working Party on the Construction of Vehicles (known as Working Party 29) and other interested governments. The draft Agreement contains procedures for establishing global regulations by harmonizing existing regulations or by developing a new regulation. The new regulation might be one that yields more benefits than existing regulations addressing a particular problem or it might be an entirely new regulation, i.e., a regulation addressing a problem not addressed by any existing regulations.

In anticipation of the successful conclusion of efforts regarding the draft Agreement, NHTSA wishes to reaffirm its prior public statements about its commitment to transparency and public participation in connection with international harmonization activities. That commitment has guided the agency's work on the draft Agreement. The agency is cognizant of the 1991 recommendation by the Administrative Conference of the United States regarding "Federal Agency Cooperation with Foreign Government Regulators" (Recommendation 91-1). The Conference recommended that:

(w)here appropriate, agencies should, so far as considerations of time and international relations permit, afford affected private and public interests timely notice of any formal system of collaboration with foreign regulatory bodies that exists and an opportunity where reasonable to participate

³NHTSA might have to modify or supplement the test procedures in the foreign standard to comply with the requirements in NHTSA's authorizing statute that FMVSSs be practicable and be stated in objective terms.

⁴Public notice that NHTSA and the Environmental Protection Agency would participate in negotiations regarding an international agreement was published March 8, 1994 (59 FR 10846).

and comment on decisionmaking under such system.

Because of its commitment to transparency, NHTSA has met throughout the past eighteen months with representatives of consumer interest groups and the motor vehicle industry to keep them apprised of developments in the negotiations regarding the draft Agreement. With respect to the implementation of the agreement, the agency emphasizes that it would not only keep the public advised of the key activities and make available key documents relating to the development of vehicle safety standards under the agreement, but also provide appropriate, and timely, opportunities for obtaining public input regarding the merits of these matters. The agency plans to elaborate more fully on its procedures regarding transparency and public participation in the near future.

V. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

NHTSA has considered the impact of this rulemaking action under Executive Order 12866 and the Department of Transportation's regulatory policies and procedures. This final rule was not reviewed by the Office of Management and Budget under E.O. 12866, "Regulatory Planning and Review." This action is not "significant" under the Department of Transportation's regulatory policies and procedures.

This rule will not mandate compliance with any new requirements or the expenditure of any resources. NHTSA also notes that the cost of passenger cars and light trucks will not be directly affected by the rule. However, one result of adding a foreign standard to a FMVSS as an alternative compliance option or of harmonizing the FMVSS with the foreign standard could be to reduce overall manufacturing costs, and thus costs to consumers. Thus, the act of granting a petition for such a rulemaking could lead to actions that would affect the cost of new passenger cars or light trucks.

B. Regulatory Flexibility Act

NHTSA has considered the effects of this rule under the Regulatory Flexibility Act. I hereby certify that it will not have a significant economic impact on a substantial number of small entities. The rule will primarily affect manufacturers of motor vehicle and/or

motor vehicle equipment, since the majority of rulemaking petitions are submitted by manufacturers. Few motor vehicle manufacturers qualify as small businesses.

The Small Business Administration's regulations define a small business, in part, as a business entity "which operates primarily within the United States." (13 CFR Part 121.105(a)) SBA's size standards are organized according to Standard Industrial Classification Codes (SIC). SIC Code 3711 "Motor Vehicles and Passenger Car Bodies" has a small business size standard of 1,000 employees or fewer. SIC Code 3714 "Motor Vehicle Parts and Accessories" has a small business size standard of 750 employees or fewer.

There were approximately twelve large manufacturers and four small manufacturers producing passenger cars and light trucks in the United States. Total United States manufacturing production is approximately 15 to 15.5 million passenger cars and light trucks per year.

Petitioners who are not vehicle manufacturers will also be subject to the rule. However, NHTSA does not believe that small entities will be burdened since the rule does not require the expenditure of funds. Like any petitioner for rulemaking, a petitioner that does not or cannot generate supporting data and analyses will run the risk that the agency may not grant its petition for rulemaking. Petitioners will not, however, be subject to any regulatory requirements beyond those already required by NHTSA in the Code of Federal Regulations.

C. National Environmental Policy Act

NHTSA has analyzed this rule for the purposes of the National Environmental Policy Act and determined that it will not have any significant impact on the quality of the human environment.

D. Executive Order 12612 (Federalism)

The agency has analyzed this rule in accordance with the principles and criteria set forth in Executive Order 12612. NHTSA has determined that the amendment will not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

List of Subjects in 49 CFR Part 553

Imports, Incorporation by reference, Motor vehicle safety, Motor vehicles, Rubber and rubber products, Tires.

In consideration of the foregoing, 49 CFR Part 553 is amended as follows:

PART 553—RULEMAKING PROCEDURES

1. The authority citation for Part 553 continues to read as follows:

Authority: 49 U.S.C. 322, 1657, 30103, 30122, 30124, 30125, 30127, 30146, 30162, 32303, 32502, 32504, 32505, 32705, 32901, 32902, 33102, 33103 and 33107; delegation of authority at 49 CFR 1.50.

2. The title of the existing Appendix to Part 553 is revised to read as follows:

Appendix A To Part 553—Statement of Policy: Action on Petitions For Reconsideration

3. Part 553 is amended by adding the following new Appendix:

Appendix B To Part 553—Statement of Policy: Rulemakings Involving The Assessment of The Functional Equivalence of Safety Standards

(a) Based on a comparison of the performance of vehicles or equipment, the National Highway Traffic Safety Administration (NHTSA) may tentatively determine that a foreign motor vehicle safety standard is better than or at least functionally equivalent to a Federal Motor Vehicle Safety Standard (FMVSS), either on its own motion or in connection with a petition for rulemaking by any interested party under 49 CFR Part 552. Such determinations will be made in accordance with the process described in the flowchart in Figure 1 of this Appendix.

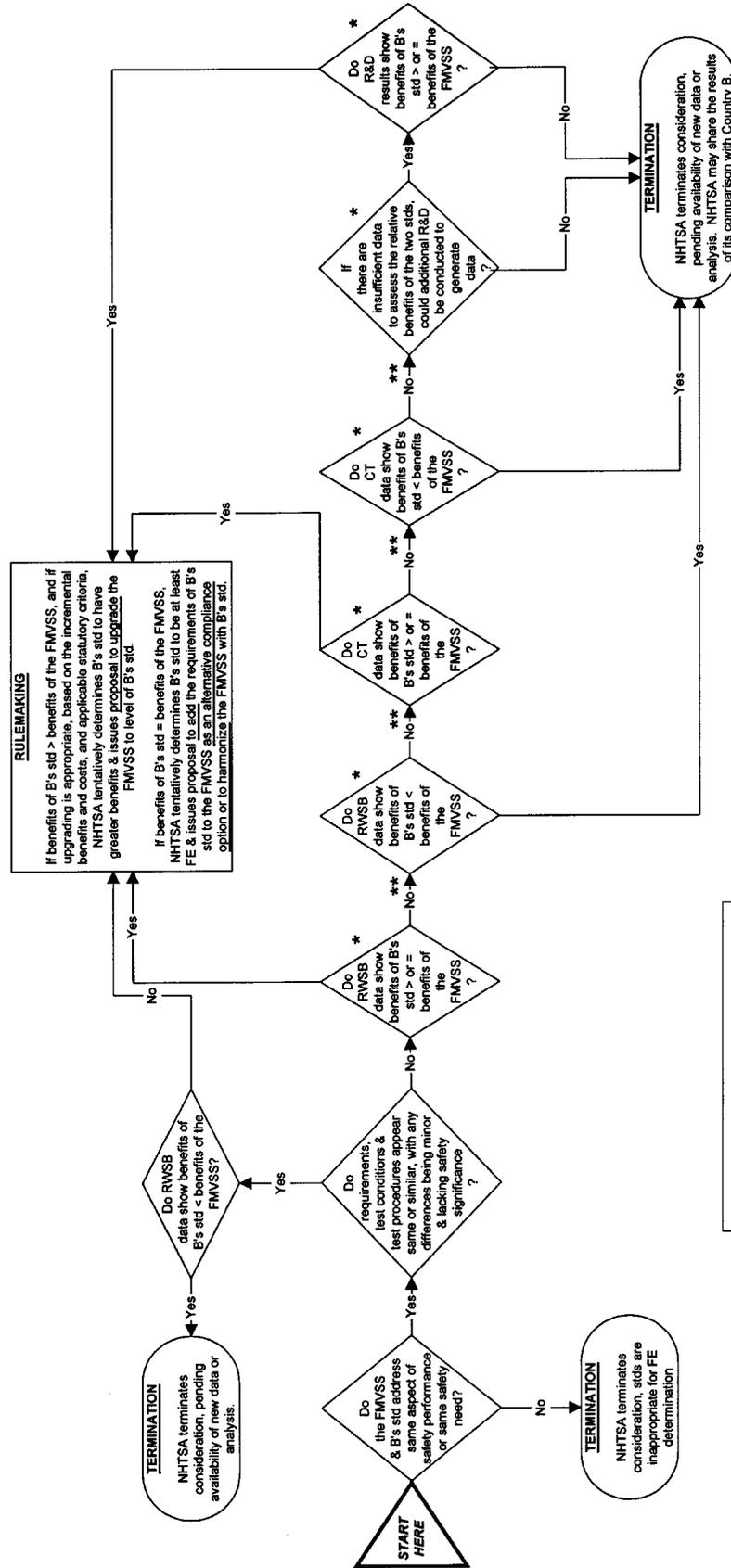
(b) Under the process, if NHTSA decides that there is reason to believe that a foreign standard is better than or at least functionally equivalent to a FMVSS in accordance with the process, it will commence a rulemaking proceeding that may lead to the issuance of a proposal to add the foreign standard as an alternative compliance option to the FMVSS, to harmonize the FMVSS with the foreign standard or to upgrade the FMVSS to the level of the foreign standard, as appropriate. Such a proposal will request comment on the agency's tentative determination regarding relative benefits and functional equivalence as well as the proposed amendment. Final determinations regarding these matters will also be made in accordance with the analytical criteria in the flowchart.

(c) As used in this appendix, the term "standard" refers to mandatory requirements and thus has the same meaning given the term "technical regulation" in Annex 1 to the World Trade Organization Technical Barriers to Trade Agreement.

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FUNCTIONAL EQUIVALENCE ASSESSMENT
PROCESS USED BY NHTSA IN COMPARING ITS VEHICLE SAFETY STANDARDS WITH THOSE OF ANOTHER COUNTRY (B)
AND DETERMINING WHETHER RULEMAKING IS APPROPRIATE

FIGURE 1



FOOTNOTES
 * Each of these steps includes engineering analysis
 ** "No" may simply mean that the data are insufficient to make the specified showing

GLOSSARY
 CT = Compliance Test
 FMVSS = Federal Motor Vehicle Safety Standards
 RWSB = Real World Safety Benefits (Estimated)
 R&D = Research and Development

EXPLANATION OF FLOWCHART**A. ULTIMATE GOAL**

The ultimate goal in comparing standards is to assess the real world safety performance of the covered vehicles or equipment. Particularly in the case of crashworthiness standards, the most reliable basis for making that assessment is fatality and injury data directly drawn from actual crashes. Accordingly, NHTSA will make appropriate efforts to ensure the availability of such data regarding crashes in the U.S.

B. GUIDING PRINCIPLES**Best Practices**

NHTSA pursues a "best practices" policy in comparing U.S. and foreign safety standards, i.e., NHTSA will propose to upgrade its standards if it tentatively concludes that a Country B standard offers greater benefits than the counterpart FMVSS, and if upgrading appears appropriate, considering the incremental costs and benefits and applicable statutory criteria. (For a discussion of another type of rulemaking proposal that may be considered in these circumstances, see the paragraph below on comparisons that indicate that a foreign standard's safety benefits are greater than those of the counterpart FMVSS.)

Conservatism

1. NHTSA places priority on preserving the safety benefits of the FMVSSs.

2. NHTSA can best preserve those benefits by being conservative in reaching any conclusion that a Country B standard is better than or at least functionally equivalent to the counterpart FMVSS. One reason for conservatism is that differences from vehicle model to vehicle model and manufacturer to manufacturer in margins of compliance may confound efforts to assess the relative benefits of two standards. Further, there may be circumstantial differences, such as special environmental conditions, driver demographics, driver behavior, occupant behavior (e.g., level of safety belt use), road conditions, size distribution of vehicle fleet (e.g., proportion of big versus small vehicles and disparity between extremes), that could influence real world safety benefits. These differences may result in a particular standard having a safety record in a foreign country that would not necessarily be repeated in the United States.

Best Available Evidence

1. NHTSA will base its comparison of standards on the best available evidence. If available, estimates of real world safety benefits based on fatality and injury data directly drawn from actual crashes are the best evidence. If such data are not available, then estimates based on other information, such as compliance test data, may be used, although increased caution needs to be exercised in making judgment based on those estimates. If sufficient crash data regarding real world safety benefits are available, and a comparison of those benefits shows that the Country B standard is less beneficial than the counterpart Federal Motor Vehicle Safety Standard (FMVSS), NHTSA would avoid wasting resources making comparisons on the basis of less probative types of evidence.

2. The types of benefits examined in comparing two standards might differ depending on whether the standards are crash avoidance standards or crashworthiness standards. Translating differences in performance (an input measure) into numbers of crashes or numbers of deaths and injuries (output measures) is more difficult in the case of crash avoidance standards. As a result, while the relative benefits of two crashworthiness standards would typically be assessed in terms of their impacts on deaths and injuries in crashes, the relative merits of two different crash avoidance standards might well be assessed in terms of their impact on vehicle or equipment performance.

Sufficiency of Evidence

1. Many types of data are available for a comparison of two standards. Often there is an abundance of one type of data and little or no data from other sources. If insufficient data are available, and such data either cannot be generated through engineering analysis (e.g., real world safety benefits estimates), or conducting additional research and development is not cost effective, then NHTSA will stop consideration of such data and consider the other available data instead.

2. The essentially horizontal, left-to-right path through the flowchart is intended to illustrate the sources of data that will be considered and provide a rough idea of the priority they will receive. Each step branches independently to the tentative determination of relative benefits and functional equivalency by its "yes" path. This may seem to preclude later steps once any "yes" path is encountered. In practice, however, all data sources will be considered to the extent that they are available before a final determination regarding these matters is made.

Reciprocity

1. NHTSA will take steps to encourage reciprocity by other countries in the making of functional equivalence determinations.

2. When NHTSA's comparison of standards indicates that one of the FMVSSs has benefits equal to or greater than the counterpart Country B standard, NHTSA may forward the results of that comparison to Country B and request that consideration be given by Country B to determining that the FMVSS is better than or at least functionally equivalent to the counterpart Country B standard, and to subsequently amending its standard accordingly.

C. AGENCY DECISIONS IN WHICH FLOWCHART IS USED

This flowchart guides agency decisions in connection with a rulemaking proceeding that involves the issue of relative benefits and functional equivalence.

1. *Decision whether to grant a rulemaking petition.* If the agency receives a petition for rulemaking based on a claim that one of Country B's standards is better than or at least functionally equivalent to one of the Federal Motor Vehicle Safety Standards (FMVSSs), the agency will consider the merits of the petition in accordance with 49 CFR Part 552, Petitions for rulemaking, defect, and noncompliance orders, and with

the functional equivalence process set forth in the flowchart. If it appears that there is reason to believe that Country B's standard provides safety benefits are greater than or at least equal to those of the FMVSS, the agency will likely grant the petition and commence a rulemaking proceeding.

The agency emphasizes that its priority with respect to international harmonization is identifying and adopting those foreign safety standards that represent best practices. Accordingly, if resource limitations make it necessary to choose between competing petitions in granting or processing them, the agency would give priority to petitions asking the agency to upgrade one of its standards to the level of a superior foreign standard over petitions simply asking the agency to add a compliance alternative.

2. *Decision whether to issue a notice of proposed rulemaking.* If NHTSA grants the petition, it will proceed, as in any other rulemaking regarding the FMVSSs, to determine whether amending an FMVSS would be appropriate under the applicable statutory criteria in chapter 301 of title 49, U.S.C. Following the process set forth in the flowchart, the agency will use data submitted by the petitioner, supplemented by data from other sources, to compare performance and tentatively determine whether Country B's standard specified in the petition is better than or at least functionally equivalent to the FMVSS specified in the petition.

This comparison could have a variety of possible outcomes:

a. *The comparison may indicate that the foreign standard's safety benefits are less than those of the counterpart FMVSS.* If NHTSA determines that the foreign standard results in fewer safety benefits than the counterpart FMVSS, it will terminate the rulemaking proceeding.

b. *The comparison may indicate that the foreign standard's safety benefits are approximately equal to those of the counterpart FMVSS.* If the agency tentatively determines that the safety benefits of a foreign standard are approximately equal to those of a FMVSS, it will take one of two steps in most instances. One possibility is that it will develop a notice of proposed rulemaking (NPRM) proposing to amend the FMVSS by adding the foreign standard as an alternative to the existing requirements of the FMVSS. The other possibility is that the agency will develop an NPRM proposing to harmonize the FMVSS with the foreign standard. This second approach would enable NHTSA to maintain a single set of requirements and test procedures in its standard, thereby minimizing any drain on its enforcement resources. An additional possibility that might be considered in some instances would be "qualified functional equivalence." Under this third approach, the agency would regard Country B's standard to be functionally equivalent if it is supplemented by a specified requirement in the counterpart FMVSS.

c. *The comparison may indicate that the foreign standard's safety benefits are greater than those of the counterpart FMVSS.* If NHTSA tentatively determines that the foreign standard results in greater safety benefits than the counterpart FMVSS, and if

upgrading is appropriate, based on the incremental benefits and costs and applicable statutory criteria, the agency issues an NPRM proposing to upgrade the FMVSS to the level of Country B's std. If upgrading is not appropriate, NHTSA considers issuing an NPRM proposing to add the requirements of Country B's std to the FMVSS as an alternative compliance option. The proposal to add the compliance option would set forth the basis for the agency's conclusion that upgrading the FMVSS is inappropriate. If NHTSA issues an NPRM, it would request comment on the tentative determination and the proposed amendment.

3. *Decision whether to issue a final rule.* Any final decision to make a determination regarding relative benefits and functional equivalency and to amend the FMVSS will be made in accordance with the process in the flowchart and applicable law and only after careful consideration and analysis of the public comments.

Issued on May 6, 1998.

Ricardo Martinez,
Administrator.

[FR Doc. 98-12598 Filed 5-12-98; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018-AE06

Endangered and Threatened Wildlife and Plants; Final Rule to List the Preble's Meadow Jumping Mouse as a Threatened Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service determines the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) to be a threatened species pursuant to the Endangered Species Act (Act) of 1973, as amended. The Preble's meadow jumping mouse, a small rodent in the family Zapodidae, is known to occur in seven counties in Colorado and two counties in Wyoming. Historical records document its former presence in additional counties in Colorado and Wyoming. The Preble's meadow jumping mouse lives primarily in heavily vegetated riparian habitats. Habitat loss and degradation caused by agricultural, residential, commercial, and industrial development imperil its continued existence. This action implements the protection of the Act for Preble's meadow jumping mouse.

DATES: This rule is effective June 12, 1998.

ADDRESSES: The complete file for this rule is available for public inspection,

by appointment, during normal business hours at the U.S. Fish and Wildlife Service's Colorado Field Office, 755 Parfet Street, Suite 361, Lakewood, Colorado.

FOR FURTHER INFORMATION CONTACT: LeRoy W. Carlson, Field Supervisor, Colorado Field Office, U.S. Fish and Wildlife Service, P.O. Box 25486, Denver Federal Center, Denver, Colorado 80225-0207 (telephone 303/275-2370).

SUPPLEMENTARY INFORMATION:

Background

The Preble's meadow jumping mouse (*Zapus hudsonius preblei*) (Preble's) is a small rodent in the family Zapodidae and is 1 of 12 recognized subspecies of the species *Z. hudsonius*, the meadow jumping mouse (Krutzsich 1954, Whitaker 1972, Hafner 1981). The family *Zapus* consists of small to medium-sized mice with long tails and long feet adapted for jumping. Krutzsich (1954) provided a revision of the taxonomy of the genus *Zapus* in North America and recognized three living species, *Z. hudsonius*, *Z. trinotatus*, and *Z. princeps*. As the most recent revision of *Z. hudsonius*, this stands as the authority for taxonomy. Fitzgerald et al. (1994) described *Z. hudsonius* as greyish to yellowish-brown in color with an indistinct mid-dorsal band of darker hair and paler sides, large hindlegs and hindfeet, and a sparsely haired tail that accounts for more than 60 percent of the total length.

In his 1899 revision of North American jumping mice, E. A. Preble referred specimens of the meadow jumping mouse from Colorado and southeastern Wyoming to the subspecies *Z. h. campestris* (Preble 1899, cited by Krutzsich 1954). Krutzsich (1954) described and named *Z. h. preblei* as separate from *Z. h. campestris*, indicating as the holotype a specimen obtained by E. A. Preble in July 1895 from Loveland, Larimer County, Colorado. All records of Preble's are from southeastern Wyoming and eastern Colorado. The coloration of Preble's was described by Krutzsich (1954) as "color dull, back from near Clay Color to near Tawny-Olive with a mixture of black hair forming poorly defined dorsal band; sides lighter than back from near Clay Color to near Cinnamon-Buff; lateral line distinct and clear Ochraceous-Buff; belly white, sometimes faint wash of clear Ochraceous-Buff; tail bicolored, brownish to light brownish-black above, grayish-white to yellowish-white below" (capitalized color terms refer to a scientific standard, while lower case

terms reflect common usage). Krutzsich (1954) also provided a technical description of the skull of Preble's, which can prove important to its identification.

There is a similarity of appearance between the Preble's meadow jumping mouse and *Z. princeps*, which also occurs in portions of Colorado and Wyoming. In general, *Z. hudsonius* may be distinguished from *Z. princeps* by average external size and cranial size (Krutzsich 1954, Whitaker 1972). Preble's may be distinguished from *Z. princeps* by a less pronounced mid-dorsal band, smaller average total length, and a skull that is small and light with a narrower braincase and smaller molars (Fitzgerald et al. 1994). Since coloration of the mid-dorsal band and total length are not definitive characteristics, skull measurements are most useful for positive identification. Ranges of the Preble's and *Z. princeps* are not known to overlap in Colorado but the relationships between respective ranges in Wyoming is less clear (Garber 1995, Armstrong 1972).

Krutzsich (1954) commented on the presence of physical habitat barriers and lack of known intergradation between the Preble's meadow jumping mouse, known only from eastern Colorado and southeastern Wyoming, and other identified subspecies of *Z. hudsonius* ranging to the east and north. Among recognized subspecies, Krutzsich found that Preble's most closely resembled *Z. campestris* from northeastern Wyoming, but summarized differences in coloration and skull characteristics. Krutzsich concluded that considerable differences existed between Preble's and related subspecies. In contrast, Jones (1981) studied specific and intraspecific relationships within *Zapus* and recognized no subspecies of *Z. hudsonius*. Jones did, however cite that *Z. hudsonius* populations in Colorado and southeastern Wyoming were apparently isolated from other populations. Hafner et al. (1981) described an additional subspecies *Z. hudsonius luteus* present in New Mexico and Arizona and differentiated it from Preble's. This subspecies was previously considered *Z. princeps luteus*, a subspecies of the western jumping mouse. Recently, *Z. h. luteus* was found in Las Animas County, Colorado (Riggs et al. 1997), the furthest north that the subspecies has been recorded, but over 100 miles south of the confirmed range of Preble's in Colorado.

Results from genetic analysis of mice from Rocky Flats Environmental Technology Site (Rocky Flats) in Jefferson County, Colorado, *Z.*