

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[MM Docket No. 93–177; FCC 01–60]

An Inquiry Into the Commission's Policies and Rules Regarding AM Radio Service Directional Antenna Performance Verification

AGENCY: Federal Communications Commission.

ACTION: Further notice of proposed rulemaking.

SUMMARY: In this document, the Commission requests comment on specific ways to incorporate the use of computer modeling techniques into the testing and verification procedures for AM radio stations that use directional antennas. Use of computer modeling would further reduce the financial burden on directional AM stations, consistent with the Mass Media Bureau's technical streamlining initiatives.

DATES: Submit comments on or before July 9, 2001 and reply comments on or before September 7, 2001.

ADDRESSES: Secretary, Federal Communications Commission, 445 12th Street, SW., Washington, DC 20554, <http://www.fec.gov>.

FOR FURTHER INFORMATION CONTACT: Peter H. Doyle, Audio Services Division, Mass Media Bureau (202) 418–2700.

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's *Further Notice of Proposed Rule Making* (FNPRM) in MM Docket No. 93–177, adopted February 14, 2001, and released March 7, 2001. The Commission adopted the FNPRM in response to comments received regarding an earlier *Notice of Proposed Rule Making* (NPRM) in this proceeding [*See* 64 FR 40539, July 27, 1999]. The complete text of this FNPRM is available for inspection and copying during normal business hours in the FCC Reference Center (Room CY–A257), 445 12th Street, SW., Washington, DC, and may also be purchased from the Commission's copy contractor, International Transcription Service, (202) 857–3800, 1231 20th Street, NW., Washington, DC 20036. The complete text is also available on the Internet at <http://www.fec.gov/mmb/asd/welcome2.html#NEWSBOX>.

Synopsis of Further Notice of Proposed Rule Making

This FNPRM requests comment on specific ways in which directional AM stations could use computer modeling

techniques to demonstrate that the antennas operate properly. Directional AM stations use antennas which suppress radiated field in some directions and enhance it in others. In order to control interference between stations and assure adequate community coverage, directional AM stations must undergo extensive “proofs of performance” to demonstrate that the antenna system operates as authorized. The Commission's *Report and Order* in this proceeding, published elsewhere in this issue, substantially reduces the number of field measurements required in a proof of performance. The FNPRM solicits comment on specific ways in which computer modeling could further reduce or replace field measurements as the primary method of demonstrating that a directional AM antenna operates as authorized.

The computer modeling methods used for directional AM antennas are generically referred to as “method of moments” programs, “matrix” programs, or “NEC” programs. NEC programs are based on the Numerical Electromagnetics Code moment method of analysis developed at the Lawrence Livermore Laboratory, Livermore, California. Computer modeling is often used by engineers to predict operating parameters of directional antenna systems.

In the NPRM in this proceeding, the Commission sought comment on its tentative conclusion that computer modeling, while useful as a design tool, could not be relied upon to predict pattern shape with sufficient accuracy in all cases. In response to the NPRM, the National Association of Broadcasters (NAB) sponsored a series of industry forums attended by representatives of large broadcasting groups, consulting engineers, and AM equipment manufacturers. NAB filed supplemental comments to present the industry committee's conclusions to date. The supplemental comments outline 18 criteria to define the types of directional antennas for which computer modeling is straightforward and consistent. These criteria would initially limit the number of towers in the array to six or fewer, would specify the type of sampling system which could be used, and would generally be limited to arrays clear of nearby reradiating objects. NAB and the joint commenters propose that directional AM arrays meeting these criteria could substitute computer modeling for proofs of performance based on field strength measurements.

The Commission requests comments on the criteria proposed by NAB to define arrays for which computer modeling could be used to verify the

proper adjustment of a directional AM antenna, and on any other limitations which may be appropriate. The Commission also seeks comment on the following topics: what data should constitute a proof of performance for an array adjusted pursuant to computer modeling; what type of external monitoring may be appropriate for arrays adjusted using computer modeling; the suitability of various types of commercially available software for antenna modeling.

Initial Regulatory Flexibility Analysis

As required by the Regulatory Flexibility Act (“RFA”),¹ the Commission has prepared this Initial Flexibility Analysis (“IRFA”) of the possible significant economic impact on small entities by the policies and rules proposed in this FNPRM. Written and electronically filed public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadlines for comments established in the FNPRM. The Commission will send a copy of the FNPRM, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration. In addition, the FNPRM and IRFA (or summaries thereof) will be published in the **Federal Register**. *See* 5 U.S.C. 604(a). Since there is no significant economic effect on small entities, we considered issuing a certification. However, we decided, in order to compile an optimally complete record, to go forward with this IRFA.

Need For and Objectives of the Proposed Rules

This FNPRM seeks comment on the use of computer modeling techniques based on moment method analysis to verify AM directional antenna performance. Adoption of such techniques would reduce further the substantial costs associated with licensing for directional AM stations. These measures would also advance the goal of reducing the Commission's regulatory requirements to the minimum necessary to achieve our policy objectives of controlling interference and assuring adequate community coverage.

Legal Basis

Authority for the actions proposed in this FNPRM may be found in sections 4(i), 4(j), 303, 308, 309, 316, and 319 of the Communications Act of 1934, as

¹ *See* 5 U.S.C. 603. The RFA, *see* 5 U.S.C. 601 *et seq.*, has been amended by the Contract with America Advancement Act of 1996, Public Law No. 104–12, 110 Stat. 848 (1996) (“CWAA”). Title II of the CWAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (“SBREFA”).

amended, 47 U.S.C. 154(i), 154(j), 303, 308, 309, 316, and 319.

Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted. 5 U.S.C. 603(b)(3). The RFA generally defines the term "small entity" as having the same meaning as the terms "small business," "small organization," and "small governmental jurisdiction." In addition, the term "small business" has the same meaning as the term "small business concern" under the Small Business Act. See 5 U.S.C. 601(3); 15 U.S.C. 632. A small business concern is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (SBA). Small Business Act, 15 U.S.C. 632 (1996). A small organization is generally "any not-for-profit enterprise which is independently owned and operated and is not dominant in its field." 5 U.S.C. 601(4). Nationwide, as of 1992, there were approximately 275,801 small organizations. 1992 Economic Census, U.S. Bureau of the Census, Table 6 (special tabulation of data under contract to Office of Advocacy of the U.S. Small Business Administration). "Small governmental jurisdiction" generally means "governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than 50,000." 5 U.S.C. 601(5). As of 1992, there were approximately 85,006 such jurisdictions in the United States. U.S. Dept. of Commerce, Bureau of the Census, "1992 Census of Governments." This number includes 38,978 counties, cities, and towns; of these, 37,566, or 96 percent, have populations of fewer than 50,000. The Census Bureau estimates that this ratio is approximately accurate for all governmental entities. Thus, of the 85,006 governmental entities, we estimate that 81,600 (91 percent) are small entities.

The proposed policies will apply to certain AM radio broadcasting licensees and potential licensees. The Small Business Administration defines a radio broadcasting station that has no more than \$5 million in annual receipts as a small business. 13 CFR 121.201, SIC 4832. A radio broadcasting station is an establishment primarily engaged in broadcasting aural programs by radio to the public. Executive Office of the President, Office of Management and

Budget, Standard Industrial Classification Manual (1987), SIC 4832. Included in this industry are commercial religious, educational, and other radio stations. Radio broadcasting stations which primarily are engaged in radio broadcasting and which produce radio program materials are similarly included. However, radio stations which are separate establishments and are primarily engaged in producing radio program material are classified under another SIC number. The 1992 Census indicates that 96 percent (5,861 of 6,127) radio station establishments produced less than \$5 million in revenue in 1992. The Census Bureau counts radio stations located at the same facility as one establishment. Therefore, each co-located AM/FM combination counts as one establishment. Official Commission records indicate that 11,334 individual radio stations were operating in 1992. FCC News Release, No. 31327 (January 13, 1993). As of February 1, 2001, official Commission records indicate that 12,751 radio stations were operating, of which 4,674 were AM stations.

Thus, because only 40 percent of AM stations operate with directional antennas, the proposed rules will affect fewer than 1,870 radio stations, 1,795 of which are small businesses. We use the 96% figure of radio station establishments with less than \$5 million revenue from the Census data and apply it to the 1,870 radio stations using directional antennas to arrive at 1,795 individual AM stations as small businesses. These estimates may overstate the number of small entities since the revenue figures on which they are based do not include or aggregate revenues from non-radio affiliated companies.

In addition to owners of operating radio stations, any entity that seeks or desires to obtain a radio broadcast license may be affected by the proposals contained in this item. The number of entities that may seek to obtain a radio broadcast license is unknown. We invite comment as to such number.

Description of Projected Recording, Recordkeeping, and Other Compliance Requirements

Previous comments in this proceeding showed broad support for further consideration of the topic of computer modeling. In order to control interference between stations and assure adequate community coverage, directional AM stations must undergo extensive "proofs of performance" when initially constructed, and from time to time thereafter, to verify conformance with authorized operating parameters.

This FNPRM proposes to consider the incorporation into the proof process of computer modeling techniques known as "method of moments." Use of computer modeling offers the potential of a new proof of performance process which is substantially more efficient for both directional AM stations and the Commission staff. Although we anticipate that adopting rule changes to permit use of computer modeling would reduce the engineering costs borne by new or modified directional AM facilities, it is premature to assess the extent of the reduction. We do expect that the optional use of computer modeling would introduce new compliance requirements, but these would be less onerous than our existing proof of performance requirements. The adoption of computer modeling techniques is not likely to introduce new record keeping or recording requirements.

Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities. 5 U.S.C. 603(c). This FNPRM solicits comment on the use of computer modeling in an AM proof of performance. Incorporation of these methods into the Commission's rules has the potential to reduce the burdens and delays associated with our radio broadcast licensing processes. We have solicited comment on adopting computer modeling techniques as an optional alternative to the conventional proof of performance process. We do not anticipate requiring directional AM stations to use computer modeling when filing an application for license. Consequently, none of the four alternative approaches is applicable in this case. Nevertheless, any significant alternatives presented in the comments will be considered.

List of Subjects in 47 CFR Part 73

Radio.

Federal Communications Commission.

William F. Caton,

Deputy Secretary.

[FR Doc. 01-9887 Filed 4-24-01; 8:45 am]

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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: Denial of petition for reconsideration.

SUMMARY: This notice announces the denial of a petition for reconsideration of the agency's decision to set the minimum driving range for dual fueled electric passenger vehicles at 7.5 miles when operating in the EPA urban cycle and 10.2 miles on the EPA highway cycle.

FOR FURTHER INFORMATION CONTACT: For non-legal issues: 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.

For legal issues: Otto Matheke, Office of the Chief Counsel, NCC-20, telephone (202) 366-5253, facsimile (202) 366-3820.

SUPPLEMENTARY INFORMATION:

I. Establishment of a Minimum Driving Range for Dual Fueled Electric Passenger Vehicles

On December 1, 1998, NHTSA published a final rule in the **Federal Register** (63 FR 66064), which established a minimum driving range for dual fueled electric passenger vehicles.

The agency promulgated this rule in response to amendments in the Energy Policy Act of 1992 (EPACT) (Pub. L. 102-486) which expanded the scope of the alternative fuels promoted by section 513 of the Motor Vehicle Information and Cost Savings Act (Cost Savings Act), now codified as 49 U.S.C. 32905. Section 32901(c), the replacement section for section 513(h)(2), requires dual fueled

passenger automobiles to meet specified criteria, including meeting a minimum driving range, in order to qualify for special treatment in the calculation of their fuel economy for purposes of the corporate average fuel economy (CAFE) standards promulgated under Chapter 329 of Title 49 of the United States Code (49 U.S.C. 32901 *et seq.*).

The EPACT amendments, which expanded the scope of alternative fuel vehicles eligible for special CAFE treatment, established and modified minimum driving range requirements for these vehicles. These new or modified minimum driving range requirements necessitated amendments to the driving range requirements found in 49 CFR part 538, *Manufacturing Incentives for Alternative Fuel Vehicles*. NHTSA established a minimum driving range for all dual fueled vehicles except electric vehicles in a final rule issued on March 21, 1996 (61 FR 14507). As noted above, a final rule establishing a minimum driving range for dual fueled electric passenger vehicles was published on December 1, 1998. This final rule set the minimum driving range for dual fueled electric passenger vehicles at 7.5 miles on the EPA urban cycle and 10.2 miles on the EPA highway cycle when operating on electricity alone. The rule further specified that a dual fueled electric passenger vehicle must attain these minimum driving ranges while operating on its nominal electric storage capacity.

The final rule represents the agency's best effort to reconcile the characteristics of contemporary vehicles with Chapter 329's alternative fuel incentive program. The statutory framework of this incentive program, which was drafted well before the advent of the technologies now used in some Hybrid Electric Vehicles (HEVs), does not accommodate the most common HEV designs now in use or under development. Contemporary HEV's have both a conventional internal combustion petroleum fueled engine and an electric motor/generator in their drivetrain. The vehicle uses the petroleum fueled engine either to assist the electric motor or to recharge the batteries used to power the electric motor. Depending on the conditions encountered by the vehicle, it may be powered solely by the electric motor or may be propelled by both the petroleum fueled engine and the electric motor at the same time. In certain modes of operation, the vehicle may be propelled by the electric motor but the gasoline engine may be operating to recharge the batteries. In these HEV's, the modes of operation must switch rapidly and

seamlessly—the vehicle may be powered exclusively by the electrical energy stored in the batteries at one moment and may be deriving a substantial amount of its propulsion from the internal combustion engine the next.

As the agency noted in both the Notice of Proposed Rulemaking (NPRM) (62 FR 375, January 3, 1997) and the preamble accompanying the final rule establishing the minimum driving range, Congress established specific definitions for what vehicles may be considered to be dual fueled vehicles for CAFE purposes. 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 that 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