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**FEDERAL TRADE COMMISSION
16 CFR Part 432**

**TRADE REGULATION RULE RELATING TO POWER OUTPUT CLAIMS FOR
AMPLIFIERS UTILIZED IN HOME ENTERTAINMENT PRODUCTS**

AGENCY: Federal Trade Commission.

ACTION: Notice deferring action on proposed rule.

SUMMARY: On December 22, 2000, the Federal Trade Commission (the "Commission") commenced a rulemaking proceeding and requested public comments on a supplemental notice of proposed rulemaking to amend its Rule relating to Power Output Claims for Amplifiers Utilized in Home Entertainment Products (the "Amplifier Rule" or the "Rule"). The Commission solicited comments until March 30, 2001. In response to a request from an industry trade association, the Commission has determined to defer action on the proposed rule, but keep open the rulemaking record in this proceeding.

DATES: The Federal Trade Commission's decision to defer action on the proposed rule is effective [insert date of publication in the *Federal Register*].

FOR FURTHER INFORMATION CONTACT: Dennis Murphy, Economist, Division of Consumer Protection, Bureau of Economics, (202) 326-3524, or Neil Blickman, Attorney, Division of Enforcement, Bureau of Consumer Protection, (202) 326-3038, Federal Trade Commission, Washington, DC 20580.

SUPPLEMENTARY INFORMATION:

On December 22, 2000, the Commission published in the *Federal Register* a request for public comments on a supplemental notice of proposed rulemaking ("SNPR") to amend its Amplifier Rule, 16 CFR Part 432 (65 FR 80798). The Amplifier Rule was promulgated on May

3, 1974 (39 FR 15387), to assist consumers in purchasing power amplification equipment for home entertainment purposes by standardizing the measurement and disclosure of various performance characteristics of the equipment. Specifically, the *Federal Register* notice solicited public comments on Commission proposals to amend the Amplifier Rule's testing procedures to provide appropriate power output ratings for the recently introduced class of multichannel audio/video receivers and amplifiers, such as those used in "home theater" installations.¹ These receivers and amplifiers, which incorporate five or more discrete channels of amplification, are designed to decode and/or amplify digitally encoded multichannel movie soundtracks, or music program material recorded on video cassette tapes, laser discs, or digital video disks.

Audio/video receivers with digital decoding circuitry and five or more discrete channels of amplification were not available to consumers when the Amplifier Rule originally was promulgated, or when the Commission initiated its review of the Amplifier Rule in 1997 to determine the Rule's current effectiveness and impact.² The Commission tentatively concluded in the SNPR that such components raise unique interpretational issues under the Rule that have not heretofore been addressed. The Commission determined, therefore, to publish an SNPR commencing a supplementary rulemaking proceeding, and inviting interested persons to submit written comments addressing the issues raised in that notice.

¹ On the same day, the Commission published separately in the *Federal Register* a final rule streamlining the Amplifier Rule's advertising disclosure requirements with respect to total rated harmonic distortion and the associated power bandwidth and impedance ratings, and clarifying the testing procedure for self-powered speakers (65 FR 81232).

² 62 FR 16500 (April 7, 1997).

Section 432.2(a) of the Rule requires that an amplifier's rated continuous power output per channel be "[m]easured with all *associated* channels fully driven to rated per channel power." [Emphasis added.] This continuous measurement represents the maximum per-channel power an amplifier can deliver over a sustained period of time, which the Rule defines as five minutes. By requiring uniform power output disclosures in the advertising of audio amplifier equipment, the Rule enables consumers to easily make power output comparisons among the types and brands of audio equipment, and assess the products in conjunction with price. When the Rule was promulgated in 1974, virtually all amplifiers available to consumers incorporated either one channel of amplification ("monophonic" amplifiers), or two channels in a left and right "stereophonic" configuration. For such amplifiers, interpretation of the term "all associated channels" in section 432.2(a) is self evident. By definition, a monophonic amplifier can be measured only with its single channel driven to full rated power. For stereophonic amplifiers, the left and right channels clearly are associated presentations of the same musical performance and, in any event, are the only channels that could be considered "associated" under the Rule.

In recent years, multichannel audio/video receivers and power amplifiers with five or more channels of amplification have accounted for an increasingly large share of consumer audio equipment sales. Current digital audio/video receivers and amplifiers typically incorporate a pair of front left and right stereophonic amplification channels, a center channel designed to reproduce the dialog portion of cinema soundtracks, and two discrete rear amplification channels that may reproduce special sound effects or ambient sound information encoded in cinema soundtracks or music program material. Some home theater amplifiers may also provide one or more "subwoofer" amplification channels that are dedicated to reproducing only deep bass

frequencies (below approximately 100 Hertz). Future developments may include additional surround or special effects channels placed around the listening room.

Manufacturers of multichannel audio/video receivers and amplifiers who wish to rate power output under section 432.2 of the Rule must decide which of the five or more discrete channels of amplification are to be considered "associated" and, therefore, subject to simultaneous operation at full rated power. Under the strictest interpretation of section 432.2(a), all available channels would be considered associated and all channels would be driven to full rated power simultaneously during testing. Such a regimen might severely tax the common power supply utilized in many home theater receivers, and the resulting per channel power ratings might be considerably below those that would be obtained if, for example, only the specific set of channels being rated (*e.g.*, surround channels) were driven to full power simultaneously. The controlling consideration in determining the proper interpretation of "associated channels" is whether audio/video receivers and amplifiers would, when operated by consumers in the home at high playback volume, be required to deliver full rated power output in all channels simultaneously, or whether such maximum stress conditions would more likely be restricted at any given moment of time to certain sub-groupings of available channels.

The Commission already has reached a determination relevant to the appropriate treatment of any subwoofer channels of amplification that might be provided in audio/video receivers. This determination, which the Commission announced on December 22, 2000 (65 FR 81232), applies to self-powered combination subwoofer-satellite loudspeaker systems, such as those used with personal computers and in home theater installations. Specifically, the Commission amended section 432.2 of the Rule to specify that:

. . . when measuring maximum per channel output of self-powered combination speaker systems that employ two or more amplifiers dedicated to different portions of the audio frequency spectrum, such as those incorporated into combination subwoofer-satellite speaker systems, only those channels dedicated to the same audio frequency should be considered associated channels that need be fully driven simultaneously to rated per channel power.

In reaching this determination, the Commission concluded that, under actual in-home use of such combination systems, maximum power demands typically would not occur precisely in the crossover region of frequencies that would be reproduced both by the subwoofer and satellite amplifiers. Rather, simultaneous demands would more likely occur in portions of the audio spectrum that would be assigned primarily either to the subwoofer amplifier or the satellite amplifier.³ A similar conclusion would appear to hold for home theater receivers that incorporate a separate amplified subwoofer channel(s) and an internal crossover network.

The Commission tentatively concluded, therefore, that subwoofer amplifiers in combination self-powered subwoofer-satellite speaker systems and subwoofer amplifiers in audio/video receivers should be treated consistently under section 432.2(a) of the Rule. That is, the amplified subwoofer channel(s) of digital home theater receivers and the remaining amplified channels need not be considered “associated” channels that must be fully driven to rated per channel power when rating the power output of the subwoofer channel(s).

The Commission was unable, however, to make any tentative determination concerning the appropriate designation of associated channels for the remaining amplified channels in multichannel audio/video receivers and amplifiers, since the rulemaking record contained no evidence relevant to this issue. The Commission, therefore, solicited public comment on three

³ See, e.g., 64 FR 38610, 38613 (July 19, 1999).

alternative methods of grouping associated channels for multichannel audio/video receivers. The Commission stated that these alternatives would govern power ratings applicable when an audio/video receiver is used in full multichannel mode, but would not affect power ratings for the main left and right front channels that apply when the receiver's intended use is restricted to conventional stereo mode. For such conventional stereo ratings, only the two front stereo channels need be driven simultaneously to full rated power.

In the SNPR, the Commission proposed to amend section 432.2 of the Rule to define the term "associated channels" for multichannel audio/video receivers such as those used in home theater systems.⁴ The Commission solicited public comment on the following three alternative designations of "associated channels" for such audio equipment:

Alternative A: When measuring maximum per channel output of multichannel audio/video receivers and power amplifiers, the front stereo channels, the center channel(s), and the surround channels should be considered associated channels that need be fully driven simultaneously to rated per channel power. The subwoofer channels should be considered as a second group of associated channels.

Alternative B: When measuring maximum per channel output of multichannel audio/video receivers and power amplifiers, the front stereo channels and the center channel(s) should be considered one group of associated channels; the surround channels should be considered a second group of associated channels; and the subwoofer channels should be considered a third group of associated channels.

⁴ The public comment period on the SNPR concluded on March 30, 2001 (66 FR 12915 (March 1, 2001)).

Alternative C: When measuring maximum per channel output of multichannel audio/video receivers and power amplifiers, the front stereo channels should be considered one group of associated channels; the center channel(s) should be considered a second group of associated channels; the surround channels should be considered a third group of associated channels; and the subwoofer channels should be considered a fourth group of associated channels.

The SNPR elicited one comment, which was received from the Consumer Electronics Association ("CEA").⁵ CEA noted that presently there is no industry consensus on testing, measuring and specifying the power output of multichannel amplifier products. In the absence of a voluntary industry standard that adequately addresses multichannel amplifiers, CEA stated that the industry is divided on the complex issue of testing and measuring multichannel receivers and amplifiers. CEA commented that while some manufacturers are testing and measuring the power output of their amplifiers with all channels driven simultaneously, other manufacturers are interpreting the term "associated" to mean the simultaneous testing and measuring of only those channels that are "naturally" associated. For example, manufacturers are testing and measuring the power output of amplifier channels grouped as follows: a "2-1-2" approach (front left and right, center, rear left and right); or a "3-2" approach (front left, right and center, rear left and

⁵ CEA represents more than 625 U.S. companies involved in the design, development, manufacturing and distribution of audio, video, mobile electronics, communications, information technology, multimedia and accessory products, as well as related services that are sold through consumer channels. Combined, these companies account for more than \$70 billion in annual sales. CEA's comment appears on the public record in this proceeding and is available for public inspection in the Public Reference Room, Room 130, Federal Trade Commission, 600 Pennsylvania Ave., NW, Washington, DC, from 8:30 a.m. to 5:00 p.m., Monday through Friday, except federal holidays.

right). In both examples, front left and right channels, and rear left and right channels are considered "natural" groupings in audio systems. Pending clarification, CEA stated that any of these approaches might be acceptable, provided that only one is agreed upon by the industry. With the expectation of future developments in multichannel audio technology, CEA has suggested that the Commission apply a flexible interpretation of the term "associated" to the testing and measuring of the power output for any "associated" audio channels that may be added in the future. CEA stated that this complex situation demands that the audio industry now take an active leadership role in reviewing and revising existing industry standards to apply them to multichannel receivers and amplifiers.

CEA, therefore, has formed an industry working group, the purpose of which is to establish a voluntary industry consensus standard for measuring the power output of multichannel receivers and amplifiers. CEA has encouraged the Commission to continue its cooperative approach to revising the Amplifier Rule, and consider incorporating into its final rule any new voluntary standard developed by CEA for testing, measuring, and specifying the power output of all amplifiers within the scope of the Rule.

The Commission is aware that the issues raised by the SNPR *Federal Register* notice are complex and technical. In the Commission's view, therefore, the public interest would best be served at this time by allowing the industry the opportunity to develop a voluntary standard for testing, measuring, and specifying the power output of multichannel amplifiers and receivers. If the industry is successful in establishing a consensus standard in a reasonable period of time, the Commission will evaluate the technical merits of the standard and consider whether it can

function satisfactorily as a voluntary standard, or whether it, or an alternative standard, should be incorporated into the Rule's requirements.

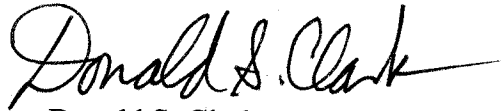
Accordingly, in light of CEA's comment, the Commission has decided to defer action on the proposed rule, but keep open the rulemaking record in this proceeding to allow sufficient time for CEA to address the issues raised in the SNPR, and encourage the exchange of ideas between the Commission and the industry.

Authority: 15 U.S.C. 41-58.

List of Subjects in 16 CFR Part 432

Amplifiers, Home entertainment products, Trade practices.

By direction of the Commission.

A handwritten signature in cursive script that reads "Donald S. Clark". The signature is written in black ink and is positioned above the printed name.

Donald S. Clark

Secretary