

FEDERAL TRADE COMMISSION

16 CFR Part 432

RIN 3084-AB62

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

AGENCY: Federal Trade Commission.

ACTION: Final rule.

SUMMARY: The Federal Trade Commission (“FTC” or “Commission”), pursuant to section 18 of the FTC Act, issues final amendments to its Trade Regulation Rule Relating to Power Output Claims for Amplifiers Utilized in Home Entertainment Products (“Amplifier Rule” or “Rule”). The amendments require sellers making power-related claims to calculate power output using uniform testing methods to allow consumers to easily compare amplifier sound quality; prescribe disclosure language that improves differentiation between power output claims that comply with the Rule’s testing methods and those that do not; and modernize as well as clarify Rule language considering the foregoing modifications. Additionally, the amendments formalize prior Commission guidance on applying the Rule to multichannel amplifiers.

DATES: This Rule is effective on [INSERT DATE 60 DAYS AFTER PUBLICATION IN THE *FEDERAL REGISTER*].

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SUPPLEMENTARY INFORMATION:

Statement of Basis and Purpose¹

I. Background

The Commission promulgated the Amplifier Rule in 1974 to address sellers' failure to provide essential pre-purchase information regarding the performance of home entertainment amplifiers.² Specifically, manufacturers described their products' performance through power output claims (*e.g.*, "25 Watts"), but tested their amplifiers under a variety of conditions and procedures that rendered different results for the same products. Thus, consumers could not effectively use advertised wattage claims to compare brands or determine how individual amplifiers would perform. At the time, the Commission noted, "[s]ince the mid-50's the [audio] industry" had failed "to agree upon a single industry standard which is meaningful to the consumer."³ Accordingly, the Rule standardized the measurement and disclosure of some, but not all, performance characteristics of power amplification equipment to "assure that . . . performance characteristics are based upon conditions of normal use by the consumer, *i.e.*, conditions which are encountered in the home."⁴

Under the Rule, sellers making certain power claims (*i.e.*, for power output, power band or power frequency response, or distortion characteristics) must disclose power output measured

¹ This document is published pursuant to section 18 of the FTC Act, 15 U.S.C. 57a, 16 CFR 1.14, and 5 U.S.C. 551 *et seq.* This authority permits the Commission to promulgate, modify, and repeal trade regulation rules that define with specificity acts or practices that are unfair or deceptive in or affecting commerce within the meaning of section 5(a)(1) of the FTC Act, 15 U.S.C. 45(a)(1). The Commission undertook this rulemaking proceeding as part of the Commission's ongoing program of evaluating trade regulation rules and industry guides to determine their effectiveness, impact, cost and need.

² 39 FR 15387 (May 3, 1974).

³ *Id.* at 15388.

⁴ *Id.* at 15392. Merely testing amplifiers under identical test conditions will not produce useful consumer information if the test conditions differ significantly from normal use conditions.

under specified test conditions. For example, amplifiers must be tested at an ambient air temperature of at least 77° F (25° C).⁵ The Rule, however, does not specify values for three test conditions that significantly affect power output measurements: (1) load impedance;⁶ (2) rated power band or power frequency response;⁷ and (3) total harmonic distortion (“THD”).⁸ Instead, the original Rule required sellers to disclose these values when making certain power claims.⁹ In 2000, the Commission eliminated this disclosure requirement in “media advertising” but retained the requirement in product brochures and manufacturer specification sheets.¹⁰

Pursuant to its ongoing regulatory review schedule, on December 18, 2020, the Commission published an Advance Notice of Proposed Rulemaking (“ANPR”) seeking comment on the Amplifier Rule.¹¹ Specifically, the ANPR sought comments regarding possible

⁵ This requirement prevents testing with cooling equipment while driving amplifiers to high power outputs that would overheat amplifiers during normal use. *See* 16 CFR 432.3(d) (“The preconditioning and testing shall be in still air and an ambient temperature of at least 77 °F (25 °C).”).

⁶ Prior to these amendments, the Rule set a default load impedance of 8 ohms for measuring power output but permitted measurement at a different load impedance if the amplifier is designed primarily for that impedance. 16 CFR 432.2(a) (2023). “[T]he lower the load impedance utilized in testing . . . equipment, the higher the output of the amplifier.” 39 FR at 15390. For example, an amplifier that outputs 550 watts into 2 ohms might only output 350 watts into 4 ohms and 215 watts into 8 ohms. *See Speaker Impedance Changes Amplifier Power*, GEOFF THE GREY GEEK, <https://geoffthegreygeek.com/speaker-impedance-changes-amplifier-power/> (last visited Mar. 11, 2024).

⁷ High quality amplifiers can output a broad range of frequencies, such as the sounds of all the instruments in an orchestra, at high power. Lower quality amplifiers can only output certain frequencies, such as 1 kHz (*e.g.*, the sound of a trumpet), at high power, and output lower frequencies (*e.g.*, a timpani or bass) or higher frequencies (*e.g.*, a piccolo) at lower power. Power output measurements made at a single frequency or over a limited power band do not permit consumers to distinguish between these quality differences in amplifiers. The Commission has stated “a measurement [on a 1 kHz test signal] is inherently deceptive to the consumer who expects that a piece of equipment represented as being capable of a stated power output will deliver that power output across its full audio range.” 39 FR at 15390.

⁸ The output of an amplifier driven to increasingly higher power will distort and sound different from the original performance. When the Commission promulgated the Rule, it received evidence that distortion limits during testing affect power output measurements. For example, the same amplifier might output 20 watts if driven only until the output reaches 0.5% THD, and output 30 watts when driven to 5% THD. The Rule requires disclosure of the THD during testing so consumers can determine the value of power output measurements. *See* 39 FR at 15391–92.

⁹ 16 CFR 432.2 (1974).

¹⁰ 65 FR 81232 (Dec. 22, 2000).

¹¹ 85 FR 82391 (Dec. 18, 2020).

Rule improvements, the continuing need for the Rule, the Rule’s costs and benefits, as well as whether, and how, technological or economic changes have affected the Rule.

In response, the Commission received 550 unique comments, including comments from amplifier and speaker manufacturers, amplifier sellers and purchasers, and engineers or journalists in the audio field.¹² All but one commenter supported retaining the Rule.¹³ Based on this near universal support, the Commission concluded there was a continuing need for the Rule.

Although commenters overwhelmingly supported the Rule, some recommended amendments. For example, many commenters urged the Commission to require uniform power band, load impedance, and THD limits to prevent manipulation of these three test conditions.¹⁴

Consistent with these comments, FTC staff found such manipulation ubiquitous in the marketplace. Specifically, FTC staff found dozens of examples of the same equipment advertised with significantly different power output claims.¹⁵ Using specification sheets on

¹² These comments can be found at <https://www.regulations.gov/document/FTC-2020-0087-0001/comment>. The Commission received a total of 1,133 comments. However, only 550 of these comments responded to the ANPR or discussed any aspect of the Rule. In this notice, commenters are referred to by name, the acronym for the notice to which the commenter responded (either ANPR, NPRM, or SNPRM), and the number assigned to each comment. For example, the comment to the ANPR from Garry Grube, which was assigned ID FTC-2020-0087-0187 on www.regulations.gov, is referred to as “Garry Grube (ANPR 187).”

¹³ The one commenter did not provide a substantive comment.

¹⁴ For instance, Alan McConnaughey (ANPR 5) commented, “More rules should be [enacted] to require 8 ohm ratings so everything is apples do [*sic*] apples.” Jim McCabe (ANPR 378) commented that amplifiers should be tested “driven from 20 to 20k” to “stop the lying.” Danny Anonymous (ANPR 435) commented that, “[t]o eliminate confusion, just use Output Watts@1%THD.” *See also, e.g.*, comments from Dennis Murphy, Philharmonic Audio (ANPR 525) and David Rich (ANPR 548). Overall, twenty-seven commenters recommended specifying the load impedance; 36 recommended specifying the power band to be 20 Hz to 20 kHz; 26 recommended specifying a THD or requiring a low THD; and 159 recommended, in conjunction with a recommendation regarding multichannel amplifier testing, specifying values for all three test conditions.

¹⁵ *See, e.g.*, *Onkyo TX-8220*, CRUTCHFIELD, https://www.crutchfield.com/p_580TX8220/Onkyo-TX-8220.html (last visited on Oct. 1, 2021); *Onkyo TX-8220*, AMAZON.COM, https://www.amazon.com/Onkyo-TX-8220-Channel-Receiver-Bluetooth/dp/B075P831VY/ref=sr_1_1?dchild=1&keywords=Onkyo+TX-8220&qid=1633096775&sr=8-1 (viewed on Oct. 1, 2021; advertisement subsequently revised).

manufacturers' websites, FTC staff confirmed these widely divergent claims resulted from different testing parameters.

Based on the comments and FTC staff's review, the Commission found requiring disclosure of test conditions is unlikely to prevent deceptive power output claims. Test conditions are highly technical and require complex calculations to convert claims into apples-to-apples power output comparisons. Thus, the average consumer is unlikely to understand or use the disclosed test conditions to avoid deception.¹⁶ This problem is exacerbated by the fact that consumers now shop online more frequently, providing fewer opportunities to listen to equipment before purchasing.

To address widespread misleading power output claims, the Commission published a Notice of Proposed Rulemaking ("NPRM"), proposing an amendment to the Amplifier Rule to standardize the three test conditions.¹⁷ Specifically, the Commission proposed the following standard values: (1) a load impedance of 8 ohms; (2) a power band of 20 Hz to 20 kHz (except for self-powered subwoofer systems); and (3) a THD limit of less than 0.1%. FTC staff's review found amplifiers are generally designed to drive a nominal load impedance of 8 ohms; 20 Hz to 20 kHz covers the normal range of human hearing;¹⁸ and 0.1% THD does not audibly distort a

¹⁶ FTC staff has surveyed numerous academic articles finding that consumers are not able to effectively comprehend highly technical disclosures; no surveyed research found to the contrary. *See, e.g.,* Omri Ben-Shahar & Carl E. Schneider, *The Failure of Mandated Disclosure*, 159 U. PA. L. REV. 647 (2011), available at <http://www.jstor.org/stable/41149884>. The Commission promulgated the Rule so consumers would not need to perform complex calculations to derive useful power ratings. It found that, prior to the Rule, consumers had to "deduct 10 to 25 percent [from the "music power" ratings previously claimed] and divide by 2" to derive power ratings that reflected normal usage. 39 FR at 15388. Additionally, the Commission has previously concluded that "an insufficient number of consumers . . . understand the meaning and significance of . . . disclosures concerning power bandwidth and impedance." 63 FR 37238, 37239 (July 9, 1998).

¹⁷ 87 FR 45047 (July 27, 2022).

¹⁸ The Commission's NPRM proposal excluded amplifiers in self-powered subwoofers used in systems that employ two or more amplifiers dedicated to different portions of the audio frequency spectrum from being tested over a

signal. Several commenters suggested these test conditions, and many manufacturers' specification sheets already disclose power outputs tested at 8 ohms, 20 Hz to 20 kHz, and at THD limits of, or slightly below, 0.1%.

The Commission received nine unique comments in response to the NPRM.¹⁹ While most of the commenters either broadly supported the regulation of power output claims or the standardization of test conditions,²⁰ two expressed concern about the THD limit. They explained many vacuum tube and solid state amplifiers “would not be able to qualify for a power output claim” under the proposed 0.1% limit.²¹ Accordingly, they recommended the Commission allow manufacturers to disclose their chosen THD level rather than set a fixed limit. Additionally, one

power band of 20 Hz to 20 kHz. The Commission has previously recognized that, while “stand-alone . . . amplifiers . . . must reproduce signals covering the full musical frequency bandwidth,” “self-powered subwoofer systems . . . incorporate crossover circuitry that filters out frequencies above the bass range,” and the amplifiers in self-powered subwoofer systems only amplify bass frequencies. 64 FR 38610, 38613–14 (July 19, 1999). Consequently, the Commission proposed to limit the power band for testing self-powered subwoofer amplifiers to the frequencies within those amplifiers' intended operating bandwidth. The NPRM proposal required testing amplifiers in self-powered full-range loudspeakers, such as full-range Bluetooth speakers that output more than two watts, over a power band of 20 Hz to 20 kHz.

¹⁹ These comments can be found at <https://www.regulations.gov/document/FTC-2022-0048-0001>. The Commission received a total of 11 comments. However, two of these comments neither responded to the NPRM nor discussed any aspect of the Rule. A third comment raised concerns outside the scope of this proceeding (*e.g.*, health risks posed by amplifiers) and did not supply any supporting evidence. *See* Chelsy Graves (NPRM 5).

²⁰ *See, e.g.*, Travis Surprenant (NPRM 2) (“It needs to be a uniform rating to ensure consumers are comparing products on a level playing field.”); Peiyan Wang (NPRM 4) (“A uniform testing method could provide convenience for consumers to compare different products.”); Kiet Hoang (NPRM 10) (“I believe it needs to be a uniform testing method in order to provide the customers to compare the products on a comparable basis.”). Only one commenter opposed the Commission's proposal in its entirety, contending that the proposal is unnecessary because most component manufacturers “generally already use [the Commission's proposed] parameters to test their devices” and is irrelevant because consumers shopping for integrated audio devices do not evaluate specifications such as power output. Consumer Technology Association (“CTA”) (NPRM 8). The Commission found evidence in the marketplace at odds with CTA's views and reaffirmed the need to standardize power output test conditions in its SNPRM. *See* 88 FR 56780, 56782 (Aug. 21, 2023).

²¹ Dennis Murphy (NPRM 9) (stating that all of the tube amplifiers reviewed by the audio publication *Stereophile* over the past 10 years and many solid state amplifiers could not meet the 0.1% maximum THD requirement); *see also* E.W. Blackwood (NPRM 7) (“0.1% total harmonic distortion (THD) is too restrictive and would have an impact on many manufacturers.”).

commenter recommended replacing the term “total harmonic distortion” with “THD with noise,” or “THD+N,” to align the Rule with the Commission’s original intent.²²

In response to these comments, the Commission issued a Supplemental Notice of Proposed Rulemaking (“SNPRM”) that modified its NPRM proposal standardizing test conditions in three ways.²³ First, it proposed updating the Rule’s reference to “total harmonic distortion” with “total harmonic distortion plus noise” (“THD+N”).²⁴ Second, the Commission proposed raising the THD+N limit to 1.0% to address commenters’ concern that a significant number of amplifiers on the market cannot qualify for any power output claim under the NPRM proposal’s 0.1% limit.²⁵ Third, the Commission proposed requiring sellers to designate power output disclosures under § 432.2 with the text “FTC Power Output Rating.” Further, if sellers make Optional Disclosures under § 432.4, they would have to state “This rating does not meet the FTC standard,” to help consumers distinguish between the two.²⁶

Additionally, the Commission proposed making four non-substantive changes to update and clarify the language of the Rule: (1) eliminating unnecessary language in § 432.4 that currently incorporates § 432.2’s requirement to disclose the test conditions; (2) consolidating all standardized test conditions into a single section, § 432.3, to make the Rule easy to use; (3) modifying § 432.3(e) to clarify amplifiers must meet the standard for impedance, power band, and THD+N at all levels from 250mW to the disclosed level; and (4) updating § 432.4’s prohibition against using an “asterisk” to make required disclosures to reflect modern usage.²⁷

²² E.W. Blackwood (NPRM 7).

²³ 88 FR 56780, 56786 (Aug. 21, 2023).

²⁴ *Id.* at 56783 (discussing proposed 16 CFR 432.3(e)).

²⁵ *Id.*

²⁶ *Id.* at 56784 (discussing proposed 16 CFR 432.2 and 432.4).

²⁷ *Id.* (discussing proposed 16 CFR 432.2 to 432.4).

Finally, the Commission proposed formalizing its long-standing guidance that, for multichannel systems, the FTC power output rating under § 432.2 requires the manufacturer to fully drive, at a minimum, the front-left and front-right channels used for stereo programming.²⁸

II. Comments Received in Response to SNPRM

The Commission received four unique comments in response to the SNPRM. Two commenters fully supported the SNPRM proposal, noting the importance of a consistent standard that applies to all manufacturers.²⁹ Another commenter suggested the Commission require manufacturers to disclose supplemental information relating to whether the manufacturer measured THD+N for harmonics beyond the 20 Hz to 20 kHz bandwidth.³⁰

The final commenter, Consumer Technology Association (“CTA”), opposed the Commission’s SNPRM proposal.³¹ CTA recommended the Rule allow manufacturers to set the testing parameters for power band and impedance, stating generally that certain component and integrated amplifier devices are not designed to put out power at the 20 Hz to 20 kHz power band and 8 ohm impedance specifications proposed in the SNPRM. CTA also requested the Rule require measuring harmonic distortion using THD at 1 kHz. CTA explained using THD+N over the entire 20 Hz to 20 kHz bandwidth, as required by the Commission’s SNPRM proposal, would capture the hum of the commercial power supply as well as sampling noise. Finally, CTA

²⁸ *Id.* (discussing proposed 16 CFR 432.2).

²⁹ Anonymous (SNPRM 6) (“By standardizing test conditions for load impedance, power band, and THD+N, the FTC is taking a significant step towards eliminating misleading power output claims and assisting consumers in making informed comparisons between different amplifier products.”); Jesse S. (SNPRM 2) (“Consistency is key for having shared standards that everyone follows.”).

³⁰ E.W. Blackwood (SNPRM 4). The commenter explained that measuring harmonics to an 80 kHz bandwidth can reveal “artifacts that can indicate high frequency problems” but also acknowledged that “most people can’t even hear the fundamental at 20kHz, let alone the second harmonic.” *Id.*

³¹ CTA (SNPRM 3).

recommended against using the disclosure “This rating does not meet the FTC standard,” to distinguish Optional Disclosures under § 432.4 from FTC power output disclosures under § 432.2. CTA noted this phrase could have the unintended consequence of denigrating acceptable international standards used by manufacturers in making power output claims in their Optional Disclosures.

III. Analysis of SNPRM Comments and Rule Amendments

Based on the record, the Commission amends the Rule to standardize the testing conditions as proposed in its SNPRM, with one small exception. Specifically, the Rule as amended requires power output ratings under § 432.2 to use 8 ohms load impedance, 20 Hz to 20 kHz power band, and THD+N of 1.0%. Two of the four SNPRM comments wholly supported the Commission’s proposal, and the remaining comments did not raise any issues that warrant modifying or supplementing these standard parameters. Specifically, the Commission will not require disclosure of supplemental information regarding the bandwidth used for testing the harmonics. As the commenter proposing the recommendation acknowledged, “since most people can’t even hear the fundamental at 20kHz, let alone the second harmonic, there is no need to measure anything beyond 20kHz.”³² The Commission agrees and declines to adopt this recommendation.

The Commission also declines to adopt the recommendation to allow manufacturers to set the power band and impedance parameters. While CTA stated in general terms that certain manufacturers produce amplifier devices not designed to generate power output in accordance with the FTC standard test conditions, it neither identified any affected manufacturers nor

³² E.W. Blackwood (SNPRM 4).

included data indicating the proportion of affected models.³³ In addition, the amended Rule does not increase costs for affected manufacturers by requiring them to modify their products to meet the FTC standard, as suggested by CTA.³⁴ The amended Rule only requires compliance with the FTC standard when sellers make power related claims. If a manufacturer does not want to comply with the FTC standard, it need not make such a claim. Moreover, to the extent the manufacturer wants to rate power output using “in device” parameters different from the FTC standard, it may do so using Optional Disclosures under § 432.4.

The Commission also declines to adopt CTA’s recommendation to base the maximum harmonic distortion parameter on THD at 1 kHz. While the Commission understands that amending the Rule to require power output ratings at 1.0% THD+N over the full 20 Hz to 20 kHz power band will capture some additional types of distortion (*e.g.*, distortion from the power supply), this is precisely what the Commission intended when it first promulgated the Rule in order to cover the range of distortion generated by the amplifier during typical home use.³⁵ The amendment accords with the Commission’s goals for the Rule.

The Commission also amends the Rule in accordance with the SNPRM to require the use of specific language to distinguish Optional Disclosures under § 432.4. However, it clarifies that

³³ The SNPRM requested that commenters “provide any available evidence and data that supports their position, such as empirical data.” 88 FR at 56785.

³⁴ CTA (SNPRM 3) (“The FTC’s proposal to increase the frequency range will impose additional costs that all consumers must pay and does not reflect the diversity of audio products available in today’s marketplace.”).

³⁵ For instance, the Commission’s intent to include noise in using the term “total harmonic distortion” is demonstrated by its explanation of § 432.3(a) when it first promulgated the Rule. That section requires AC power lines for testing equipment capable of using AC as a power source. The Commission explained that testing cannot artificially eliminate the “hum and noise factor” present in AC power lines by using a battery to power equipment capable of AC power. 39 FR 15387, 15393 (May 3, 1974). An AC-powered amplifier generates this power line distortion under “conditions of normal use by the consumer, *i.e.*, conditions which are encountered in the home” that the Commission intended the Rule to reflect. *Id.* at 15392.

when using such disclosures, sellers should use the phrase “This rating was not tested under the FTC standard” rather than the proposed “This rating does not meet the FTC standard.” The use of this more neutral phrase should resolve CTA’s concern about denigrating the use of accepted international standards in making Optional Disclosures while still serving the purpose of alerting consumers that the seller used a different test procedure.

With respect to the other amendments proposed in the SNPRM, namely the four non-substantive changes and the formal adoption of the 2010 Commission guidance for multichannel systems, none of the commenters raised any specific concerns or recommendations. Accordingly, the Commission amends the Rule to incorporate each of these five remaining proposals as follows.

First, the Commission eliminates language in § 432.4 that the Rule will no longer require. Second, the Commission consolidates all standard test conditions into a single section. Currently, the Rule has two sections that contain standard test conditions. Section 432.3 entitled “Standard Test Conditions” contains most of the Rule’s test condition requirements; however, the requirement to test using “minimum sine wave continuous average power output, in watts, per channel . . .” appears in § 432.2(a). Consolidating these requirements should make the requirements easier to find.³⁶

Third, the Commission modifies § 432.3(e) to clarify amplifiers must meet the standard for impedance, power band, and THD+N at all levels from 250mW to the disclosed level. Retaining this requirement from the current rule³⁷ while standardizing test conditions should

³⁶ See amended 16 CFR 432.3(g) and (h).

³⁷ 16 CFR 432.2(b).

ensure the advertised power claim does not mask lower power levels at which the amplifier would not meet the FTC's standard.

Fourth, the Commission updates § 432.4's prohibition against using an "asterisk" to make disclosures required under the Rule. The new proposal modernizes this language to similarly prohibit the use of footnotes and other notations typically used to obscure disclosures in advertising.³⁸

Finally, the Commission formalizes its guidance regarding how channels in a multichannel amplifier must be driven when measuring power output under the FTC standard. The FTC standard requires all "associated channels" to be fully driven when measuring power output of the amplifier.³⁹ In 2010, the Commission found that "associated channels" for multichannel systems include, at a minimum, the front-left and front-right channels used for stereo programming, and issued guidance stating that power output measurements that do not meet this floor violate the Rule.⁴⁰ While ANPR commenters proposed a variety of alternative standards for driving multichannel amplifiers,⁴¹ and the NPRM specifically solicited evidence regarding normal usage of multichannel amplifiers,⁴² no commenters on either the ANPR or the

³⁸ The prohibition against using an asterisk is contained in Note 2 of the prior version of § 432.4. The Commission's amendments eliminate Note 2, as well as Note 1 addressing the font style of certain disclosures, and move the substantive requirements of these two Notes into the main text of §§ 432.2(d) and 432.4(a) and (b).

³⁹ This requirement is in the prior version of § 432.2(a). The amendments consolidate this requirement with the other standard test conditions in § 432.3. *See* paragraph accompanying fn. 35 *supra*.

⁴⁰ The Commission based its guidance on the finding that "[t]he left and right front channels of home theater multichannel amplifiers are responsible for reproducing a substantial portion of the musical soundtracks of movies, as well as a substantial portion of the program content of music CDs and DVDs." 75 FR at 3987.

⁴¹ Commenters on the ANPR proposed fully driving 2 channels, fully driving 3 channels and partially driving the remaining channels, and driving 5 channels at 70%, among other proposals. *See, e.g.*, Leo Nolan (ANPR 67); Gene DellaSala (ANPR 6); Jason Jenkins (ANPR 70). In its comment on the NPRM, CTA correctly observed that none of the commenters supported their respective proposals with any evidence of how channels are driven in typical use in the home. CTA (NPRM 8).

⁴² 87 FR at 45049–50. As the Commission stated in the prior 2000 proceeding to amend the Rule, "[t]he controlling

NPRM provided evidence regarding real-life use of multichannel systems. Likewise, the SNPRM solicited comments on formalizing the Commission’s 2010 guidance, but the Commission received none. Accordingly, considering the Commission’s 2010 finding and in the absence of any evidence supporting an alternative, the Commission modifies § 432.2 to formalize its long-standing guidance on “associated channels” for multichannel amplifiers—that is, at least the front-left and front-right channels used for stereo programming must be driven simultaneously.⁴³

IV. Rulemaking Procedures

The Commission has found that using expedited procedures in this rulemaking serves the public interest. Expedited procedures support the Commission’s goals of clarifying and updating existing regulations without undue expenditure of resources, while ensuring that the public has an opportunity to submit data, views, and arguments on whether the Commission should amend the Rule. In the NPRM, the Commission announced that it would use the following procedures pursuant to 16 CFR 1.20: (1) publishing a Notice of Proposed Rulemaking; (2) soliciting written comments on the Commission’s proposals to amend the Rule; (3) holding an informal hearing, if requested by interested parties; and (4) announcing final Commission action in this document published in the Federal Register. Because none of the commenters requested an informal hearing, the Commission, in its discretion, did not schedule an informal hearing.

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.” 65 FR 80798, 80800 (Dec. 22, 2000).

⁴³ See *infra* amended 16 CFR 432.3(h) (“Associated channels for multichannel amplifiers shall include, at a minimum, the left front and right front channels used for reproducing stereo programming.”).

V. Regulatory Analysis

Under Section 22 of the FTC Act, 15 U.S.C. 57b-3, the Commission must issue a preliminary regulatory analysis for a proceeding to amend a rule if the Commission: (1) estimates that the amendment will have an annual effect on the national economy of \$100 million or more; (2) estimates that the amendment will cause a substantial change in the cost or price of certain categories of goods or services; or (3) otherwise determines that the amendment will have a significant effect upon covered entities or upon consumers. In the NPRM and SNPRM, the Commission preliminarily determined that the proposed amendments to the Rule will not have such effects on the national economy, on the cost of sound amplification equipment, or on covered businesses or consumers. In developing these proposals, the Commission has sought to minimize prescriptive requirements and provide flexibility to sellers in meeting the Rule's objectives. The Commission requested but received no comments on the economic effects of the amendments to the Rule, other than CTA's comment addressed above.⁴⁴ A final regulatory analysis is not required because the Commission finds that the amendments will not have such effects on the national economy, on the cost of sound amplification equipment, or on covered businesses or consumers.

VI. Regulatory Flexibility Act Requirements

The Regulatory Flexibility Act ("RFA"), 5 U.S.C. 601–612, requires that the Commission conduct an analysis of the anticipated economic impact of the amendments on small entities. The purpose of a regulatory flexibility analysis is to ensure that an agency considers potential impacts on small entities and examines regulatory alternatives that could achieve the

⁴⁴ See note 34 and accompanying text *supra*.

regulatory purpose while minimizing burdens on small entities. The RFA requires that the Commission provide an Initial Regulatory Flexibility Analysis (“IRFA”) with a proposed rule and a Final Regulatory Flexibility Analysis (“FRFA”) with a final rule, if any, unless the Commission certifies that the rule will not have a significant economic impact on a substantial number of small entities.

The Commission believes that the amendments would not have a significant economic impact upon small entities, although they may affect a substantial number of small businesses. Specifically, the change in the disclosure requirements should not significantly increase the costs of small entities that manufacture or import power amplification equipment for use in the home. In the SNPRM, the Commission certified that the proposed amendments would not, if promulgated, have a significant impact on a substantial number of small entities. The Commission noted that, while a substantial number of the entities covered by the Rule likely qualify as small businesses, the Commission did not anticipate that the amendments would result in higher costs for covered entities because manufacturers already test power output for their amplifiers. The Commission nonetheless determined that it was appropriate to publish an IRFA to inquire into the impact of the proposed amendments on small entities. The Commission received no comments regarding the SNPRM’s certification or IRFA. Therefore, based on available information, the Commission certifies that amending the Rule will not have a significant economic impact on a substantial number of small businesses.

VII. Paperwork Reduction Act

The current Rule contains various provisions that constitute information collection requirements as defined by 5 CFR 1320.3(c), the definitional provision within the Office of

Management and Budget (“OMB”) regulations implementing the Paperwork Reduction Act (“PRA”). OMB has approved the Rule’s existing information collection requirements through April 30, 2024 (OMB Control No. 3084-0105). As described above, the Commission is proposing amendments to simplify power output measurements by standardizing test parameters. The amendments do not change the frequency of the testing or disclosure requirements specified under the Rule. Accordingly, FTC staff does not anticipate that this change will result in additional burden hours or higher costs for manufacturers who already test power output for their amplifiers, in many cases testing amplifiers under the conditions specified by the proposed amendments. Therefore, the amendments do not require further OMB clearance.

VIII. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801 *et seq.*), the Office of Information and Regulatory Affairs designated these rule amendments as not a “major rule,” as defined by 5 U.S.C. 804(2).

List of Subjects in 16 CFR Part 432

Amplifiers, Home entertainment products, Trade practices.

For the reasons stated above, the Commission amends part 432 of title 16 of the Code of Federal Regulations as follows:

PART 432—POWER OUTPUT CLAIMS FOR AMPLIFIERS UTILIZED IN HOME ENTERTAINMENT PRODUCTS

1. The authority citation for part 432 continues to read:

Authority: 38 Stat. 717, as amended; (15 U.S.C. 41-58).

2. Revise § 432.2 to read as follows:

§ 432.2 Required disclosures.

Whenever any direct or indirect representation is made of the power output, power band or power frequency response, or distortion characteristics of sound power amplification equipment, the manufacturer's rated power output shall be disclosed subject to the following conditions:

(a) The rated power output is measured in compliance with the standard test conditions in § 432.3;

(b) The rated power output is disclosed clearly, conspicuously, and more prominently than any other representations or disclosures permitted under this part;

(c) The disclosure of the rated power output is clearly and conspicuously labeled "FTC Power Output Rating"; and

(d) The disclosures or representations required under this section shall not be made by a footnote, asterisk, or similar notation.

3. Revise § 432.3(e) and add paragraphs (g) and (h) to read as follows:

§ 432.3 Standard test conditions.

* * * * *

(e) Any power level from 250 mW to the rated power shall be obtainable at all frequencies within the rated power band of 20 Hz to 20 kHz without exceeding 1.0% of total harmonic distortion plus noise (THD+N) at an impedance of 8 ohms after input signals at said frequencies have been continuously applied at full rated power for not less than five (5) minutes at the amplifier's auxiliary input, or if not provided, at the phono input. *Provided*, however, that for amplifiers utilized as a component in a self-powered subwoofer in a self-powered subwoofer-

satellite speaker system that employs two or more amplifiers dedicated to different portions of the audio frequency spectrum, any power level from 250 mW to the rated power shall be obtainable at all frequencies within the subwoofer amplifier's intended operating bandwidth without exceeding 1.0% of total harmonic distortion plus noise (THD+N) at an impedance of 8 ohms after input signals at said frequencies have been continuously applied at full rated power for not less than five (5) minutes at the amplifier's auxiliary input, or if not provided, at the phono input.

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(g) Rated power shall be minimum sine wave continuous average power output, in watts, per channel (if the equipment is designed to amplify two or more channels simultaneously), measured with all associated channels fully driven to rated per channel power.

(h) Associated channels for multichannel amplifiers shall include, at a minimum, the left front and right front channels used for reproducing stereo programming. *Provided*, however, when measuring the 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 spectrum should be considered associated channels.

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4. Revise § 432.4 to read as follows:

§ 432.4 Optional disclosures.

Other operating characteristics and technical specifications not required in § 432.2 may be disclosed. *Provided*, that:

(a) Any other power output is rated by the manufacturer, expressed in minimum watts per channel, and clearly and conspicuously labeled “This rating was not tested under the FTC standard” without the use of a footnote, asterisk, or similar notation to make the representation;

(b) All disclosures or representations made under this section are less conspicuously and prominently made than any rated power output disclosure required in § 432.2. Any disclosure or representation bold faced or more than two-thirds the height of any rated power output disclosure required in § 432.2 is not less prominent; and

(c) The rating and testing methods or standards used in determining such representations are well known and generally recognized by the industry at the time the representations or disclosures are made, are neither intended nor likely to deceive or confuse consumers, and are not otherwise likely to frustrate the purpose of this part.

By direction of the Commission.

April J. Tabor,

Secretary